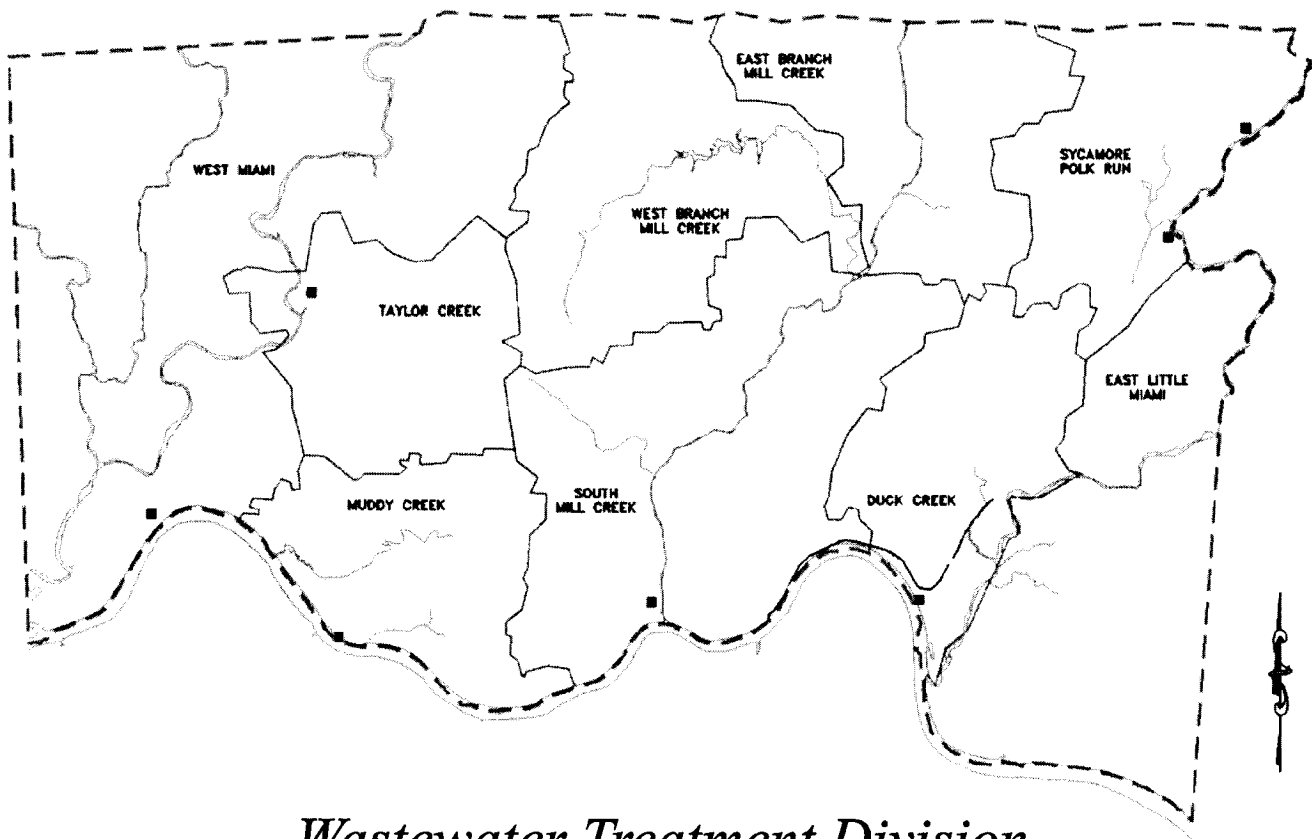


EXHIBIT 9

Metropolitan Sewer District of Greater Cincinnati

PUMP/LIFT STATION OPERATION AND MAINTENANCE PROCEDURES



Wastewater Treatment Division

DECEMBER 1999
REVISED FEBRUARY 2002



MSD Division of Wastewater Treatment Pump/Lift Station Operation and Maintenance Procedures

Purpose:

Maintain all Pump and Lift stations in a reliable and ready condition. Respond and make repairs quickly to prevent or minimize any negative environmental impact, if a problem does occur. Take quick decisive action to (1) stop the incident and (2) to protect the public from potential health risks in the event of an overflow.

Definition:

For the purposes of this document, "Section" refers to the operating sections within Metropolitan Sewer District, Division of Wastewater Treatment. The sections involved in this procedure are, Little Miami Treatment Plant, Mill Creek Treatment Plant, Muddy Creek Treatment Plant, Polk Run Treatment Plant, Sycamore Treatment Plant, Taylor Creek Treatment Plant and Equipment Maintenance. Each of the treatment plant sections is responsible for the pump and lift stations in a geographic area. Equipment Maintenance provides service, as needed to all of the treatment plant sections. The Wastewater Treatment Division is in the process of forming a Pump Station/Lift Station (PS/LS) group. As the PS/LS group is staffed responsibility for pump/lift station inspection and preventive maintenance will be transferred from plant personnel to the PS/LS group.

Procedures:

Continuous monitoring of all pump/lift stations (Telemetry)

Each station is continuously monitored through the MSD radio telemetry system. Monitoring parameters include, but are not limited to:

- Power status (power failure)
- Wet well status (high well)
- Dry well status (where applicable)
- Generator status
- Entry alarm (on the Remote Terminal Unit)

The signals from the telemetering system are monitored at the following locations.

- The section responsible for the operation and maintenance of the station.
- Station 10 located at the Mill Creek Treatment Plant
- The Little Miami Treatment Plant

The telemetering system is maintained in proper working order. MSD employs a full time technician who with the aid of the electrical engineering staff and the electrical staff of the various treatment sections maintains the radio telemetry system.

Emergency Response Procedures

Each operating section has a procedure that includes the proper response for various alarm conditions from the pump and lift stations. How an alarm is dealt with is determined by the personnel availability in the operating section, weather conditions and the characteristics of the station involved. When called for, maintenance personnel are dispatched to the station to evaluate and correct the condition. If the operating section cannot make this response, personnel from an adjacent section or from the Wastewater Treatment Division's equipment maintenance staff are called in.

For any incident that involves an overflow, an Environmental Event Report is filled out. A sample is collected and sent to the laboratory along with an MSD Overflow Monitoring form. The incident is also reported in accordance with the Reporting Procedures listed below. Examples of an Environmental Event Report and an Overflow Monitoring form are located on pages 1 and 2 of Appendix B. Additionally, if a mechanical problem is the cause of the overflow, staff will respond so as to minimize overflow duration, and expeditiously schedule work to repair the mechanical problem.

Mitigation

Any area impacted by an overflow is flushed or cleaned as needed to remove debris, prevent odors and preserve the environment.

Reporting Procedures

All non-permitted overflows are reported to the Ohio EPA's 24 hour emergency response number 1-800-282-9378 and are followed up with a detailed letter, in accordance with the guidelines established by that agency. In addition, for any overflow that may affect public health or safety, the health department with local jurisdiction is notified.

In the event of a fish or wildlife kill attributed to the overflow, the Ohio Department of Natural Resources is notified.

The OEPA emergency response phone numbers are posted at each of the treatment facilities. Health Department and Ohio Department of Natural Resources numbers are available through the dispatcher at station 10.

Station inspection

In addition to the continuous monitoring, each station is inspected on a regular schedule. The frequency of these inspections is determined on a station by station basis, and is based on factors such as age, operating history, size and potential for negative environmental impact. The minimum frequency of the inspections ranges from daily for large stations to once every 2 weeks. Examples of station inspection sheets are located on pages 3-7 of Appendix B

Station Maintenance

Preventive maintenance:

A schedule listing the PM and inspection frequency is maintained for each station. PM activities typically include, but are not limited to the following:

- Periodic service and calibration of all instrumentation, such as flow meters, level sensors, alarms, elapsed time meters and telemetering equipment.
- Routine inspection and service for all station equipment including:
 - Engines and generators
 - Motors
 - Pumps
 - Wet wells
 - Impellers
 - Seals
 - Bearings

- Wear clearances
- Couplings
- Drives
- Air release valves
- Related equipment

Records of all PM activities are kept on file. Where available, these records are kept in a computerized maintenance management system (CMMS).

An example of an annual check sheet is on pages 8-9 of Appendix B

Corrective Maintenance:

A procedure for performing corrective maintenance is maintained in each operating section. This procedure includes, but is not limited to:

- Work order writing procedures
- Operator inspection procedures
- Emergency response procedures
- Call in procedures
- Notification procedures if an environmental incident is involved

Resources available to the operating section are described in Appendix A.

Training

MSD and the Division of Wastewater Treatment require that all employees receive OSHA required training that is related to their job. In the case of pump and lift station maintenance, this training includes confined space entry, CPR, first aid and emergency response.

In addition, employees are encouraged to attend skills training which is pertinent to their job duties.

Records Keeping

Each operating section keeps records of operation and maintenance performance indicators such as:

- Equipment run hours
- Reliability history
- Maintenance and calibration history

Revisions

This plan will be subject to modification by the Director of MSD to account for changes in circumstances such as changes in the configuration of MSD facilities, the purchase of new equipment, changes in regulatory requirements, the development of new technologies, or changes in industry standards/best management practices. MSD will report any such modifications to this Plan in the annual report required by Paragraph IX.C of the Consent Decree.

Additional References

MSD shall use appropriate procedures and implement work in accordance with appropriate schedules necessary to meet the purposes of this plan. MSD is currently following the plans and schedules in APPENDIX C and APPENDIX D.

The EPA and OEPA will be notified in an annual report if there are any changes to Appendix C or Appendix D.

APPENDIX C – Pump Station and Lift Station Inspection and Preventive Maintenance Summary – This appendix summarizes pump station and lift station inspection and preventive maintenance frequency in place as of the date of this document.

APPENDIX D - Pump Station and Lift Station Preventive Maintenance Procedures – This appendix includes copies of the preventive maintenance procedures in place as of the date of this document.

Appendix A

Resources Available to Operating Sections

Appendix A

Resources Available to Operating Sections

All operating sections have equipment such as boom trucks, general maintenance tools, pick-up trucks, vans and portable gasoline powered pumps. In addition, Taylor Creek section has three vacuum tankers and Mill Creek has two Vactor trucks. Trailer mounted portable hydraulic pumps are kept at the Muddy Creek and Sycamore Treatment Plants. In addition, the Division of Wastewater Collections has a number of larger hydraulic pumps available for bypass pumping in the event of an emergency.

EQUIPMENT MAINTENANCE SECTION SUPPORT

MSD has an Equipment Maintenance Section, which provides additional support. This Section has over 50 employees and provides mechanical, electrical, stand-by generator, telemetry, machine shop, weld shop, paint shop, HVAC, and engineering support. This support augments the capabilities of the operating sections. Equipment Maintenance has heavy equipment including a truck-mounted crane (60-foot boom), a back-hoe/loader with trailer and a skid-loader (Bobcat) with trailer. In addition, there are contracts in place for renting various types of heavy equipment.

Besides having seven electricians on staff, the Electric Shop has a specialist whose full-time responsibility is to repair or rebuild pumps and motors. In most cases this technician can quickly return units to service, saving days or weeks of delay. He has the services of a fully equipped machine shop to aid him. Larger pumps are sent to the MSD Machine Shop for repair while a contractor handles large motor repairs.

The Electric Shop also has a full-time generator technician. The generators are on a timer for weekly exercise to maintain readiness. The technician times his visits as much as possible to observe the satisfactory operation on the units. However, the units are also connected to the telemetry which keeps the operating staff informed of the status of the units at all times. The generator technician performs scheduled maintenance on his rounds. He also responds to emergency calls.

MSD has two trailer-mounted diesel generators. The generators can be transported to stations experiencing a power failure. The two generators are primarily for emergency use but are also used when station maintenance requires a shutdown of utility power. MSD also has a loadbank for load testing all generators on a preventive maintenance schedule.

In addition, MSD has a contract with a company that specializes in generators. They can be called in for emergencies that exceed the capabilities of MSD staff. This contractor is also used for scheduled maintenance.

Telemetry is required in all stations. The Telemetry System monitors several key functions at each station continuously, reporting to master consoles at the plants that are fully staffed. The signals from the sensors are transmitted by radio. The telemetry monitors the status of wet and dry wells, pumps, utility power, generator status and entry alarms. It also controls the operation of pumps at some stations. There is a full-time electrical engineer and technician who maintain the telemetry system.

For technical support the Treatment Division has one environmental, five mechanical and five electrical engineers. The engineering staff assists operating and maintenance personnel with design, installation, repair and troubleshooting of the stations, their equipment and their systems.

Appendix B

Sample Maintenance Check Sheets and Forms

ENVIRONMENTAL EVENT REPORT

Facility Name: _____

Event Type: _____ Area: _____

Date Discovered: _____ Time Discovered: _____

Date Began: _____ Time Began: _____

Date Resolved: _____ Time Resolved: _____

Cause of Event: _____

Material Involved: _____

Amount: _____

What was done to correct problem? _____

Was the event preventable? ☐ Yes ☐ No If yes, what steps
should have been taken to prevent the event? _____

What steps will be taken to prevent a recurrence? _____

Was event reported? ☐ Yes ☐ No If yes, to whom and when was
the event reported? _____

Additional Comments: _____

Completed by: _____ Date: _____

Rev. 1/96

Distribution: WWT Division Office, Taylor Creek T.P., Tom Quinn, K. Stull,
B. Head

M S D
OVERFLOW MONITORING

Date Sampled: _____ Time Sampled: _____

Sampler's Name: _____

Location Sampled: _____

Comments: _____

Received by: _____

Date: _____

Time: _____

Analysis: SS: _____

BOD: _____

Signature

1/24/95

STATION ARROW HEAD

CHECKED BY _____

COMPRESSORS

DATE _____

CYCLE TEST THE STATION

CHECK AND ADJUST BELTS

1 _____

2 _____

CHECK OIL LEVEL

1 _____

2 _____

RECORD HOUR METER

1 _____

2 _____

CHECK ALTERNATOR

CHECK AIR PRESSURE, RECORD

THREE WAY VALVE

CHECK THE TIMER, RECORD

CHECK BLOWBACK INTO W.W.

ELECTRODE

CHECK NO FAIL OPERATION

HEATER, CHECK OPERATION

EXHAUST FAN CHECK OPERATION

CONTROLS

CHECK PANEL LIGHTS

VISUALY CHECK ALL WIRING

TELEMETERING

CHECK RTU AND VERIFY

HOUSE KEEPING

CLECN UP ALL SPILLS

POLICE UP AROUND STATION

COMMENTS _____

STATION CAMBERLY ACRES

CHECKED BY _____

DATE _____

WET WELL

CHECK FLOAT OPERATION

CHECK FOR GREASE AND DEBRIS

CHECK PUMP OPERATION

1 _____

2 _____

RECORD PUMP HOURS

1 _____

2 _____

CHECK SEAL FAILURE LIGHT

INSPECT CHECK VALVES

1 _____

2 _____

CONTROLS

CHECK ALTERNATOR

VISUALLY CHECK WIRING

HOUSE KEEPING

CLEAN UP ALL SPILLS

POLICE UP AROUND STATION

TELEMETERING

CHECK RTU AND VERIFY

COMMENTS _____

STATION LASALLE PLACE

CHECKEDBY _____

DATE _____

WET WELL

CHECK FLOAT OPERATION

CHECK FOR GREASE AND DEBRIS

CHECK PUMP OPERATION

1

2

3

RECORD PUMP HOURS

1

2

3

CHECK SEAL FAILURE LIGHT

INSPECT CHECK VALVES

1

2

CONTROLS

CHECK ALTERNATOR

VISUALLY CHECK WIRING

HOUSE KEEPING

CLEAN UP ALL SPILLS

POLICE UP AROUND STATION

TELEMETERING

CHECK RTU AND VERIFY

GENERATOR

RECORD HOUR METER

CHECK FUEL OIL LEVEL

CHECK LUBE OIL LEVEL

CHECK COOLING WATER LEVEL

CHECK BLOCK HEATERS

CHECK ALL HOSES, BELTS ECT.

COMMENTS _____

STATION PONDEROSA

CHECKED BY _____

DATE _____

WET WELL

CHECK FLOAT OPERATION

CHECK FOR GREASE AND DEBRIS

CHECK PUMP OPERATION

1 _____

2 _____

RECORD PUMP HOURS

1 _____

2 _____

CHECK SEAL FAILURE LIGHT

INSPECT CHECK VALVES

1 _____

2 _____

CONTROLS

CHECK ALTERNATOR

VISUALLY CHECK WIRING

HOUSE KEEPING

CLEAN UP ALL SPILLS

POLICE UP AROUND STATION

TELEMETERING

CHECK RTU AND VERIFY

COMMENTS _____

TAYLOR CREEK TREATMENT PLANT

ANNUAL MAINTENANCE

PLEASANT RUN CENTRAL

ELECTRICAL

NAME _____

MAINTENANCE

NAME _____

DATE

CHANGE AIR COMPRESSOR OIL & FILTER

**CLEAN/CHANGE ALL AIR FILTERS &
LUBRICATORS**

CHECK/CALIBRATE AIR GAGES

CHECK/CALIBRATE WATER PRESSURE GAGES

GREASE WET WELL BLOWER SHAFT

CHECK/CLEAN SEAL WATER SOLENOID

CLEAN SEAL WATER TANK

CHECK/ADJUST G.A. VALVE

GREASE INLET VALVES

GREASE OUTLET VALVES

CLEAN OUT SUMP PIT

GREASE FAN BEARINGS

CHECK/REPAIR MOTOR STARTER CONTACTS

TIGHTEN ALL ELECTRICAL CONNECTIONS

CLEAN /VACUME M.C. PANELS

CHECK/ADJUST MOTOR TIMERS

CHECK/CLEAN SOLENOID VALVES

CHECK/ADJUST PUMP PRESSURE SWITCHES

CHECK AUXILIARY POWER

CLEAN/VACUME AUXILIARY POWER PANEL

COMMENTS

WORD/WTNWORD/PRCAPM

Appendix C

Pump Station and Lift Station Inspection and Preventive Maintenance Summary

**Metropolitan Sewer District of Greater Cincinnati and Hamilton County
Wastewater Treatment Division
Pump Station and Lift Station Inspection and Preventive Maintenance
Summary**

The attached spreadsheet summarizes pump station and lift station inspection and preventive maintenance frequency. Inspections and preventive maintenance are performed to maintain the station in a reliable and ready condition. Each operating section determines how to best maintain the stations in their area based on factors, such as, age, operating/maintenance, history, size and potential for negative environmental impact. In addition to onsite inspections telemetering monitors all stations. Telemetering alerts the plant staff of problems that may require an immediate response.

Spreadsheet Notes

1. Plant names are abbreviated
 - A. LiMi – Little Miami
 - B. MiCr – Mill Creek
 - C. MuCr – Muddy Creek
 - D. PoRu – Polk Run
 - E. SyCr – Sycamore Creek
 - F. TaCr – Taylor Creek

2. Type – The type column designate the type of station
 - A. Submersible – submersible pumps
 - B. “DW” prefix – dry well station
 - C. “JET” suffix – air lift station
 - D. “SL” prefix – dry well station, suction lift
 - E. CANTEX – brand name, type of dry well station
 - F. Flush Valve – Similar to a toilet tank, chamber fills up, valves open and flow moves by gravity
 - G. SIMPLEX – brand name, type of air station

3. A “JP” number in a cell indicates that a work description is entered in the computerized maintenance management system (CMMS)

4. An “X” in a cell indicates that a preventive maintenance (PM) process is documented but not entered in the CMMS.

Metropolitan Sewer District
Pump Station and Lift Station Inspection and Preventive Maintenance Summary

Revised: 01-Oct-01

	Pump Station	Plant	Type	Inspection Freq.	PM 2/Week	Weekly	2-Weeks	Monthly	Quarterly	Semiann.	Annual
1	Anderson Woods	LiMi	SUBMERSIBLE	2 / week		JP0177				JP0181	
2	Berkley Woods	LiMi	DW-VERTICAL	2 / week		JP0178				JP0184	
3	Brittnay Acres	LiMi	DW-VERTICAL	2 / week		JP0178				JP0184	
4	Delta Avenue	LiMi	DW-HORIZONTAL	4 / day		JP0178				JP0184	
5	Dry Run	LiMi	SUBMERSIBLE	2 / week		JP0177				JP0181	
6	Eastern Avenue	LiMi	SUBMERSIBLE	2 / week		JP0177				JP0181	
7	Estates of Forest Hills	LiMi	SUBMERSIBLE	2 / week		JP0177				JP0181	
8	Fries Third	LiMi	SUBMERSIBLE	2 / week		JP0177				JP0181	
9	Harcourt Estates	LiMi	SUBMERSIBLE	2 / week		JP0177				JP0181	
10	High Meadows	LiMi	DW-VERTICAL	2 / week		JP0178				JP0184	
11	Lawyer Point	LiMi	SUBMERSIBLE	2 / week		JP0177				JP0181	
12	Mariemont Promenade	LiMi	SUBMERSIBLE	2 / week		JP0177				JP0181	
13	Mount Washington	LiMi	DW-VERTICAL	2 / week		JP0178				JP0184	
14	Newtown	LiMi	DW-VERTICAL	2 / week		JP0178				JP0184	
15	Prospect Woods	LiMi	MON-O-JET	2 / week		JP0179				JP0183	
16	Ravens Run	LiMi	SUBMERSIBLE	2 / week		JP0177				JP0181	
17	River Hills	LiMi	SUBMERSIBLE	2 / week		JP0177				JP0181	
18	Rustic Hills	LiMi	SUBMERSIBLE	2 / week		JP0177				JP0181	
19	St. James Park	LiMi	SUBMERSIBLE	2 / week		JP0177				JP0181	
20	Sanctuary of Ivy Hills	LiMi	SUBMERSIBLE	2 / week		JP0177				JP0181	
21	Stanberry Park	LiMi	SUBMERSIBLE	2 / week		JP0177				JP0181	
22	Treetops	LiMi	SUBMERSIBLE	2 / week		JP0177				JP0181	
23	Turpin Lake	LiMi	SUBMERSIBLE	2 / week		JP0177				JP0181	
24	Turpin Woods	LiMi	SUBMERSIBLE	2 / week		JP0177				JP0181	
25	Wayside	LiMi	SUBMERSIBLE	2 / week		JP0177				JP0181	
1	Bold Face	MiCr	DW-HORIZONTAL	1 / day		JP0194		JP0193			

Notes:

1. These notes apply to all the pump stations.
2. Inspections are performed by operations personnel. If no inspection frequency is noted, the inspection frequency is the same as the PM frequency.
3. PM is performed by maintenance personnel.
4. The PM number in a cell identifies the CMMS designation of the work description.
5. An "X" identifies a PM process is documented by has not been entered into the CMMS.

Metropolitan Sewer District
Pump Station and Lift Station Inspection and Preventive Maintenance Summary

Revised: 01-Oct-01

No.	Pump Station	Plant	Type	Inspec. Freq.	PM 2/Week	Weekly	2-Weeks	Monthly	Quarterly	Semiann.	Annual
1	Addyston	MuCr	DW-HORIZONTAL			X					X
2	Anderson Ferry	MuCr	DW-VERTICAL			X					X
3	Barrington Hills	MuCr	SUBMERSIBLE			X			X	X	
4	Barrington Hills Block F	MuCr	SUBMERSIBLE			X			X	X	
5	Bridgestone (Sanctuary Estates)	MuCr	SUBMERSIBLE			X			X	X	
6	Bruestle	MuCr	DW-VERTICAL			X					X
7	Centurion Estates	MuCr	SUBMERSIBLE			X			X	X	
8	Churchill Downs	MuCr	DW-VERTICAL			X					X
9	Cleves	MuCr	DW-HORIZONTAL	2 / day		X			X	X	
10	Country Club Estates	MuCr	MON-O-JET			X			X	X	
11	Dellers Glen	MuCr	SUBMERSIBLE			X			X	X	
12	Dellwood Estates	MuCr	MON-O-JET			X			X	X	
13	Diamond Oaks	MuCr	DW-VERTICAL			X					X
14	Durango Green	MuCr	SUBMERSIBLE			X			X	X	
15	Fithian	MuCr	DW-VERTICAL			X					X
16	Foley Forest	MuCr	SUBMERSIBLE			X			X	X	
17	Foley Road	MuCr	DW-VERTICAL			X					X
18	Gil Volz	MuCr	DW-VERTICAL			X					X
19	Glenview	MuCr	DW-VERTICAL			X					X
20	Hengehold 2nd	MuCr	MON-O-JET			X			X	X	
21	Hengehold 4th	MuCr	DW-VERTICAL			X					X
22	Homelawn Estates	MuCr	MON-O-JET			X			X	X	
23	Kirkridge Acres	MuCr	MON-O-JET			X			X	X	
24	Muddy Creek	MuCr	DW-VERTICAL	2 / day		X				X	X
25	North Bay Village	MuCr	SUBMERSIBLE			X			X	X	
26	Palisades #1	MuCr	DW-VERTICAL			X					X
27	Palisades #2	MuCr	MON-O-JET			X			X		
28	Palcid Meadows	MuCr	DW-VERTICAL			X					X
29	Rapid Run	MuCr	DW-VERTICAL			X					X
30	Regency Ridge (Harrison Ave.)	MuCr	SUBMERSIBLE			X			X	X	
31	Shady Lane (Addyston)	MuCr	SUBMERSIBLE			X			X	X	
32	Shady Lane Park (Quadrant)	MuCr	SUBMERSIBLE			X			X	X	
33	Streamwood	MuCr	SL-HORIZONTAL			X					X
34	Taylor Road	MuCr	SUBMERSIBLE			X			X	X	
35	Westport Village	MuCr	SUBMERSIBLE			X			X	X	
36	Windmere Third	MuCr	SUBMERSIBLE			X			X	X	
37	Yates Third	MuCr	MON-O-JET			X			X	X	

Metropolitan Sewer District
Pump Station and Lift Station Inspection and Preventive Maintenance Summary

Revised: 01-Oct-01

No.	Pump Station	Plant	Type	Inspec. Freq.	PM 2/Week	Weekly	2-Weeks	Monthly	Quarterly	Semiann.	Annual
1	Acomb	PoRu	SUBMERSIBLE			X					
2	Harper Avenue	PoRu	DW-SELFPR			X				X	
3	Huntington	PoRu	SUBMERSIBLE				X				
4	Polk Run	PoRu	SUBMERSIBLE			X				X	
5	Retwood Estates/Retview	PoRu	SUBMERSIBLE				X				
6	River Oaks	PoRu	SUBMERSIBLE				X				
7	Sheldon/Creekside	PoRu	SUBMERSIBLE				X				
1	Camargo Canyon	SyCr	SUBMERSIBLE				X				
2	Carpenters Run	SyCr	DW-VERTICAL				X				
3	Cornell Woods	SyCr	SUBMERSIBLE				X				
4	Elbroock	SyCr	MON-O-JET				X				X
5	Glens Landing	SyCr	SUBMERSIBLE				X				
6	Grooms Road	SyCr	SUBMERSIBLE				X				
7	Hageman Street	SyCr	DW-VERTICAL			X					
8	High Point	SyCr	SUBMERSIBLE			X					
9	Johnson Road	SyCr	MON-O-JET			X					X
10	Kemper Road Industrial	SyCr	SUBMERSIBLE				X				
11	Kenwood Road	SyCr	DU-O-JET				X				X
12	Kugler Mill	SyCr	SUBMERSIBLE				X				
13	Legends of Carpenters Run	SyCr	SUBMERSIBLE				X				
14	Rollman Estates	SyCr	SUBMERSIBLE				X				
15	Sharon Industrial Park	SyCr	CANTEX				X				
16	South Clippinger	SyCr	SUBMERSIBLE				X				
17	Tennyson	SyCr	SUBMERSIBLE				X				
18	Village Woods	SyCr	SUBMERSIBLE				X				
19	Weller Woods	SyCr	SUBMERSIBLE				X				
20	WynnBroock	SyCr	MON-O-JET				X				X

Metropolitan Sewer District
Pump Station and Lift Station Inspection and Preventive Maintenance Summary

Revised: 01-Oct-01

No.	Pump Station	Plant	Type	Inspec. Freq.	PM 2/Week	Weekly	2-Weeks	Monthly	Quarterly	Semiann.	Annual
1	Arrowhead	TaCr	MON-O-JET			X					X
2	Arrowood	TaCr	MON-O-JET			X					X
3	Bahama Gardens	TaCr	DW-VERTICAL			X					X
4	Blanchetta	TaCr	SUBMERSIBLE			X					X
5	Camberly Acres	TaCr	DW-VERTICAL			X					X
6	Colerain-Bevis	TaCr	SUBMERSIBLE		X						X
7	Garden Hills	TaCr	DW-VERTICAL			X					X
8	Greenpine Acres	TaCr	DW-VERTICAL			X					X
9	Greenridge 5th	TaCr	DW-VERTICAL			X					X
10	Hampton Pointe	TaCr	SUBMERSIBLE			X					X
11	Henrienne Court	TaCr	MON-O-JET			X					X
12	Honnert Ridge	TaCr	SUBMERSIBLE			X					X
13	Hunterston	TaCr	DW-VERTICAL			X					X
14	Kemper Mill Village	TaCr	SUBMERSIBLE			X					X
15	Lasalle Place	TaCr	SUBMERSIBLE			X					X
16	Locust View	TaCr	SUBMERSIBLE			X					X
17	Marview Terrace	TaCr	SIMPLEX			X					X
18	Millbrook #1	TaCr	DW-VERTICAL			X					X
19	Millbrook #2	TaCr	MON-O-JET			X					X
20	North Bend Crossing	TaCr	SUBMERSIBLE			X					X
21	Orchard Gate	TaCr	SUBMERSIBLE			X					X
22	Orchard Hills #1	TaCr	DW-VERTICAL			X					X
23	Parkwoods	TaCr	SUBMERSIBLE			X					X
24	Pleasant Run Central	TaCr	DW-VERTICAL		X						X
25	Pleasant Run East	TaCr	DW-VERTICAL		X						X
26	Pleasant Run West	TaCr	DW-VERTICAL		X						X
27	Ponderosa	TaCr	DW-VERTICAL			X					X
28	Ponderosa Woods	TaCr	MON-O-JET			X					X
29	Ridgewood Arsenal	TaCr	FLUSH VALVE			X					X
30	Sherwood	TaCr	MON-O-JET			X					X
31	Spring Leaf	TaCr	SUBMERSIBLE			X					X
32	Stratford Lake	TaCr	SUBMERSIBLE			X					X
33	Taylor Creek	TaCr	SUBMERSIBLE	1 / day		X					X
34	Timbers	TaCr	DW-VERTICAL			X					X
35	Towers East	TaCr	DW-VERTICAL			X					X
36	West Chase	TaCr	SUBMERSIBLE			X					X
37	White Oak Estates	TaCr	MON-O-JET			X					X
38	White Oak Terrace	TaCr	MON-O-JET			X					X
39	Winton Woods #1	TaCr	DW-VERT			X					X
40	Winton Woods #2	TaCr	MONO-JET			X					X
41	Willow Ridge	TaCr	SUBMERSIBLE			X					X

Appendix D

Pump Station and Lift Station Preventive Maintenance Procedures

**Metropolitan Sewer District of Greater Cincinnati and Hamilton County
Wastewater Treatment Division
Pump Station and Lift Station Inspection and Preventive Maintenance
Procedures**

This packet includes preventive maintenance procedures and checklists used to maintain pump and lift stations.

This packet has seven sections:

1. **Little Miami** – procedures are organized by “JP” number.
2. **Mill Creek** - procedures are organized by “JP” number.
3. **Muddy Creek** – Procedures are organized by frequency, weekly, quarterly, and annually.
Please note the “Mu” number was added to the document to provide for easier identification and discussion of maintenance procedures. The “Mu” number is not part of a standard MSD numbering system and may be revised as procedures are entered into the CMMS.
4. **Polk Run** – procedures are organized by equipment number.
5. **Sycamore** – procedures are organized by frequency, weekly, biweekly and annual, and by equipment number.
6. **Taylor Creek** - Procedures are organized by frequency, weekly, annually.
Please note the “Ta” number was added to the document to provide for easier identification and discussion of maintenance procedures. The “Ta” number is not part of a standard MSD numbering system and may be revised as procedures are entered into the CMMS.
7. **Generators**

Little Miami WWTP

JP0177 - LM SUBMERSIBLE PUMP STATION WEEKLY PREVENTIVE MAINTENANCE

SUBMERSIBLE PUMP STATION P.M.

WET WELL

1. NOTIFY STATION TEN THAT YOU WILL BE ENTERING STATION IF ALARMED.
2. CHECK PUMP FLOAT OPERATION - REPAIR IF NECESSARY.
3. CHECK FOR GREASE AND DEBRIS - SCHEDULE CLEANING IF NEEDED.
4. RECORD PUMP OPERATING HRS. IN LOG BOOK AND ON PM SHEET.
 - A. HRS. PUMP #1 _____
 - B. HRS. PUMP #2 _____

VALVE CHAMBER

1. INSPECT CHECK VALVE OPERATION
2. EXERCISE ISOLATION

VALVES CONTROLS

1. CHECK ALTERNATOR - REPAIR AS NEEDED
2. VISUALLY INSPECT CONTROL PANEL WIRING

HOUSE-KEEPING

1. CLEAN UP ALL SPILLS
2. CLEAN UP STATION SURROUNDINGS - SCHEDULE MAJOR CLEANING

TELEMETERING

1. LIFT HIGH WET WELL ALARM FLOAT AND CALL STATION TEN AND LMTP TO VERIFY PROPER OPERATION

GENERATOR

1. RECORD HOUR METER READING IN LOG BOOK AND ON PM SHEET.
 - A. RUNNING HOURS _____
2. CHECK FUEL OIL LEVEL AND RECORD. SCHEDULE FUEL DELIVERY IF NEEDED.
 - A. FUEL OIL LEVEL _____
3. CHECK GEN. OIL LEVEL AND RECORD.
 - A. OIL LEVEL _____
4. CHECK COOLING WATER LEVEL AND RECORD.
 - A. WATER LEVEL _____
5. CHECK BLOCK HEATER OPERATION.
6. INSPECT ALL HOSES, BELTS ETC.

COMMENTS: _____

JP0178 - LM DRY PIT PUMP STATION WEEKLY PREVENTIVE MAINTENANCE

DRY PIT PUMP STATION P.M. NOTIFY STATION TEN AND LMTP THAT YOU WILL BE ENTERING THE STATION IF ALARMED.

WET WELL

1. CHECK PUMP FLOAT OPERATION - REPAIR IF NECESSARY.
2. CHECK FOR GREASE AND DEBRIS - SCHEDULE CLEANING IF NEEDED.
3. CHECK EXHAUST FAN (FROM THE TOP) REPAIR IF NEEDED.
4. RECORD PUMP OPERATING HRS. IN THE LOG BOOK AND ON THE PM SHEET.
 - A. HRS. PUMP #1 _____
 - B. HRS. PUMP #2 _____

DRY WELL/VALVE CHAMBER

1. CHECK PUMP OPERATION - REPORT ANY PROBLEMS.
2. CHECK SEALS FOR LEAKS - REPAIR AS NEEDED.
3. INSPECT CHECK VALVE OPERATION.
4. EXERCISE ISOLATION VALVES.
5. CHECK DRY WELL FLOAT AND REPAIR AS NEEDED. CALL STATION TEN AND LMTP TO VERIFY OPERATION.
6. CHECK DE-HUMIDIFIER/SCHEDULE REPLACEMENT IF NEEDED.
7. CHECK LIGHTING AND REPLACE AS NEEDED.
8. CHECK SUMP FLOAT.

CONTROLS

1. CHECK ALTERNATOR - REPAIR AS NEEDED.
2. VISUALLY INSPECT CONTROL PANEL WIRING.

HOUSE-KEEPING

1. CLEAN UP ALL SPILLS
2. CLEAN UP STATION SURROUNDINGS - SCHEDULE MAJOR CLEANING

TELEMETERING

1. LIFT HIGH WET WELL FLOAT AND CALL STATION TEN AND LMTP TO VERIFY PROPER OPERATION. GENERATOR 1. RECORD HOUR METER READING IN LOG BOOK AND ON PM SHEET.
 - A. RUNNING HRS. _____
2. CHECK FUEL OIL READING AND RECORD. SCHEDULE FUEL DELIVERY IF NEEDED.
 - A. FUEL OIL LEVEL _____
3. CHECK GEN. OIL LEVEL AND RECORD.
 - A. OIL LEVEL _____
4. CHECK COOLING WATER LEVEL AND RECORD.
 - A. WATER LEVEL _____
5. CHECK BLOCK HEATER OPERATION.
6. INSPECT ALL HOSES, BELTS ETC.

JP0179 - LM AIRLIFT STATION WEEKLY PREVENTIVE MAINTENANCE

AIR LIFT WEEKLY P.M.

COMPRESSORS

1. CYCLE TEST THE STATION
2. CHECK THE BELTS FOR WEAR AND ADJUST TENSION
3. CHECK COMPRESSOR OIL LEVEL AND TOP OFF AS NEEDED
4. CHECK ALTERNATOR OPERATION AND REPAIR IF NEEDED
5. CHECK AIR PRESSURE AND RECORD IN LOG AND ON PM SHEET
 - A. AIR PRESSURE _____

THREE WAY VALVE

1. CHECK TIMER SETTING AND OPERATION
2. CHECK FOR AIR BLOWBACK INTO WELL

ELECTRODE

1. CHECK NO FAIL OPERATION (GROUND ELECTRODE)

HEATER

1. CHECK OPERATION AND CLEAN (COLD WEATHER ONLY)

EXHAUST FAN

1. CHECK OPERATION AND CLEAN. REPAIR IF NEEDED.

TELEMETERING

1. LIFT HIGH WET WELL FLOAT IN RECEIVER AND CHECK ALARMS. VERIFY PROPER OPERATION WITH STATION TEN AND LMTP.
2. CHECK FOR DEBRIS IN RECEIVER - SCHEDULE CLEANING IF NEEDED

CONTROLS

1. CHECK ALL WIRING VISUALLY AND REPAIR AS NEEDED.
2. CHECK PANEL LIGHTS IF NECESSARY.

HOUSE-KEEPING

1. CLEAN UP ALL SPILLS
2. CLEAN UP AROUND STATION - SCHEDULE MAJOR CLEANING

JP0181 - LM-SUBMERSIBLE PUMP STATION SEMI-ANNUAL P.M.

SEMI-ANNUAL SUBMERSIBLE PUMP STATION PM

WET WELL

1. ISOLATION VALVES AND TEST REPORT ANY CORROSION AND GENERATE PAINT LIST
2. TEST PUMP PERFORMANCE & RECORD PUMP HOURS FLOW
 - A. P#1____ HOURS P#1____ FLOW
 - B. P#2____ HOURS P#2____ FLOW
3. CHECK PUMP AMPS AND VOLTS
 - A. P#1 AMPS____ P#1____ VOLTS
 - B. P#2 AMPS____ P#2____ VOLTS
4. MEGGER PUMP LEADS AND RECORD
 - A. P#1 X____ Y____ Z____
 - B. P#2 X____ Y____ Z____
5. CHECK PUMP FLOAT OPERATION AND REPAIR AS NEEDED
6. CHECK FOR GREASE AND DEBRIS – SCHEDULE CLEANING IF NEEDED
7. CHECK PUMP MECHANICAL SEAL OIL VALVE CHAMBER
8. CHECK PUMP PERFORMANCE
 - A. FLOW____
 - B. DISCHARGE PRESSURE____
9. INSPECT CHECK VALVE AND OPERATE EXERCISE

CONTROLS

1. CHECK ALTERNATOR AND REPAIR
2. VISUALLY INSPECT CONTROL PANEL WIRING
3. CLEAN STARTER CONTACTS

HOUSE-KEEPING

1. CLEAN UP ALL SPILLS
2. CLEAN UP STATION SURROUNDINGS - SCHEDULE MAJOR CLEANING

TELEMETERING

1. LIFT HIGH WET WELL FLOAT AND VERIFY OPERATION

GENERATOR

1. RECORD HOUR METER READING IN LOG BOOK AND ON PM SHEET
 - A. RUNNING HOURS____
2. CHECK FUEL OIL LEVEL AND RECORD/SCHEDULE FUEL DELIVERY IF NEEDED
 - A. FUEL OIL LEVEL____
3. CHECK GEN. OIL LEVEL AND RECORD
 - A. OIL LEVEL____
4. CHECK COOLANT LEVEL AND RECORD
 - A. COOLANT LEVEL____
5. CHECK BLOCK HEATER OPERATION
6. INSPECT ALL HOSES, BELTS ETC.

JP0183 - SEMI-ANNUAL AIR LIFT STATION PREVENTIVE MAINTENANCE

AIR LIFT SEMI-ANNUAL P.M.COMPRESSORS

1. CYCLE TEST THE STATION AND RECORD
2. CHECK BELTS FOR WEAR AND TENSION
3. CHANGE OIL AND RECORD MOTOR AMPS
 - A. COMP#1 AMPS_____ COMP#2 AMPS_____
4. CHECK VOLTAGE AND RECORD
 - A. VOLTAGE_____
5. CHECK ALTERNATOR AND REPLACE IF NEEDED
6. CLEAN OR REPLACE AIR FILTERS ON COMPRESSORS
7. CHECK AIR PRESSURE AND RECORD
 - A. PRESSURE_____
8. BLEED AIR TANK OF CONDENSATION
9. CHECK REGULATOR AND REPAIR AS NEEDED

THREE WAY VALVE

1. CLEAN AND INSPECT THREE WAY VALVE
2. CHECK TIMER SETTING AND OPERATION

ELECTRODE

1. PULL ELECTRODE AND CLEAN OR CHANGE
2. CHECK NO FAIL OPERATION

HEATER

1. CHECK OPERATION AND CLEAN (COLD WEATHER ONLY)

EXHAUST FAN

1. CHECK OPERATION AND CLEAN

TELEMETERING

1. LIFT HIGH FLOAT IN RECEIVER AND CHECK ALARMS

CONTROLS

1. CHECK ALL WIRING CONNECTIONS
2. MEGGER COMPRESSOR MOTORS AND LOG
 - A. COMP. #1_____ COMP. #2_____
3. CHECK PANEL LIGHTS
4. CLEAN STARTER CONTACTS ONCE PER YEAR
5. CHECK GFI OUTLETS FOR PROPER OPERATION

HOUSE CLEANING

1. CLEAN UP ALL SPILLS
2. CLEAN UP AROUND STATION
3. CHECK ANODE CONNECTIONS
4. REPORT ANY CORROSION OR PAINT NEEDS

JP0184 - DRY PIT PUMP STATION SEMI-ANNUAL P.M.

DRY PIT PUMP STATION SEMI-ANNUAL P.M.

WET WELL

1. TEST PUMP PERFORMANCE AND RECORD PUMP HOURS AND FLOWS
 - A. PUMP #1____ HOURS PUMP #1____ FLOW
 - B. PUMP #2____ HOURS PUMP #2____
2. CHECK PUMP AMPS AND VOLTS AMPS
 - A. PUMP #1____ AMPS PUMP #1____ VOLTS____
 - B. PUMP #2____ AMPS PUMP #2____ VOLTS____
3. MEGGER PUMP LEADS AND RECORD
 - A. PUMP#1 X____ Y____ Z____
 - B. PUMP#2 X____ Y____ Z____
4. CHECK PUMP FLOAT OPERATION
5. CLEAN GREASE AND DEBRIS (SCHEDULE MAJOR CLEANING)
6. CHECK EXHAUST FAN FROM TOP

DRY WELL

1. CHECK SEALS FOR LEAKS AND REPAIR OR SCHEDULE REPAIR
2. CHECK DRY WELL FLOAT AND REPAIR AS NEEDED
3. CHECK AND CLEAN DE-HUMIDIFIER
4. CHECK LIGHTING AND REPLACE AS NEEDED
5. REPORT CORROSION OR OTHER PAINTING NEEDS
6. INSPECT AND OPERATE CHECK VALVES
7. EXERCISE ISOLATION VALVES AND TEST
8. CHECK ANODE CONNECTIONS
9. CHECK SUMP PUMP (LIFT FLOAT) REPAIR IF NEEDED

CONTROLS

1. CHECK ALTERNATOR AND REPLACE IF NEEDED
2. VISUALLY INSPECT ALL WIRING - REPAIR AS NEEDED
3. CLEAN STARTER CONTACTS (ONCE PER YEAR)

HOUSE CLEANING

1. CLEAN UP ALL SPILLS
2. CLEAN UP STATION AND SURROUNDINGS

TELEMETERING

1. LIFT HIGH WELL FLOAT AND CALL IN TO VERIFY PROPER OPERATION GENERATOR 1. RECORD HOUR METER READINGS
 - A. HOURS____
2. CHECK FUEL OIL LEVEL AND RECORD (SCHEDULE FILLING)
 - A. LEVEL____
3. CHECK OIL LEVEL AND RECORD
 - A. LEVEL____
4. CHECK COOLING WATER LEVEL AND RECORD
 - A. LEVEL____
5. CHECK BLOCK HEATER OPERATION
6. INSPECT ALL HOSES, BELTS ETC.

Mill Creek WWTP

JP0193 - BOLDFACE MONTHLY PM

STANDARD JOB STEPS FOR THE MONTHLY PM AT BOLDFACE PUMP STATION

1. NOTIFY OPERATIONS THAT YOU ARE DOING THE PM ON THE STATION.
2. GREASE BEARINGS ON SEWAGE PUMPS. (188-2) A.BE SURE TO PURGE THE BEARING HOUSING WHEN GREASING.
3. LUBRICATE GUIDES ON CONE VALVES. (SPRAY MOLY OR EQUIVALENT)
4. NOTIFY OPERATIONS THAT YOU HAVE COMPLETED THE PM.

JP0194 - BOLDFACE WEEKLY PM

STANDARD JOB STEPS FOR THE WEEKLY PM ON BOLDFACE PUMPING STATION.

1. NOTIFY OPERATIONS THAT YOU ARE DOING THE PM AT BOLDFACE.
2. INSPECT SEWAGE PUMPS AND REPORT ANY PROBLEMS.
3. GREASE FITTING AT THE REAR OF THE CONE VALVE YOKE. (188-2)
4. FILL OIL CUPS ON THE EXHAUST AND SUPPLY AIR FANS. (167-225)
 - A. CHECK FAN BELT, IF IT NEEDS TO BE REPLACED, REPORT BACK TO YOUR SUPERVISOR.
 - B. *****CHECK BOILER AND HOT WATER RECIRCULATING PUMP DURING THE HEATING SEASON ONLY.*****
5. DRAIN WATER FROM AIR TANKS AND BALANCE THE SYSTEM
6. CHECK HYDRAULIC FLUID IN MUFFIN MONSTER GRINDER ON LEVEL 3. ADD OIL AS NEEDED. (ARIES)
7. WHEN YOU ARE SATISFIED THAT ALL THE ABOVE STEPS ARE COMPLETED PROPERLY CLEAN UP ALL TOOLS AND DEBRIS.
8. DOCUMENT YOUR TIME, ADD COMMENTS AND CLOSE WORK ORDER IN THE CMMS.
9. NOTIFY YOUR SUPERVISOR WHEN ALL THE ABOVE IS COMPLETED.

Muddy Creek WWTP

DDY CREEK T.P. AREA AIR & DEEP STATION PI /VENTIVE MAINTENANCE RECORD

FOR WEEK BEGINNING: C .ETED BY:

		Anderson Ferry	Addyston	Bruestle	Churchill	Country Club	Dellwood	DIAMOND OAKS	Fithian	Foley Road	Gil Volz	Glenview	Hengehold 2	Hengehold 4	Homelawn	Kirkridge	Oakview	Palisades 1	Palisades 2	Placid Meadow	Rapid Run	Yates 3rd
Compressors	1) Check belt for wear and tension					X	X						X		X	X			X		X	X
	2) Check oil level 167-400					X	X						X		X	X			X		X	X
	3) Check oil pressure					X	X						X		X	X			X		X	X
	4) Check alternator					X	X						X		X	X			X		X	X
	5) Check air pressure					X	X						X		X	X			X		X	X
3-Way Valve	6) Test timer settings and operation					X	X						X		X	X			X		X	X
	7) Check air blowback into wetwell					X	X						X		X	X			X		X	X
Electrodes	8) Check no fail operation					X	X						X		X	X			X		X	X
	9) Check indicating lights					X	X						X		X	X			X		X	X
Raw Sewage Pumps	10) Lubricate drive shaft		X																			
	11) Adjust packing gland if necessary																					
	12) Backflush pump	X	X	X	X			X	X	X	X	X		X			X	X		X		
	13) Check hi & lo auto operating levels	X	X	X	X			X	X	X	X	X		X			X	X		X	X	
	14) Clean or replace seal water filter	X	X	X	X			X	X	X	X	X		X			X	X		X	X	
	15) Check alternator	X	X	X	X			X	X	X	X	X		X			X	X		X	X	
Sump pump	16) Check operation by lifting float	X	X	X	X			X	X	X	X	X		X			X	X		X	X	
Wetwell	17) Check pump start/stop floats	X	X	X	X			X	X	X	X	X		X			X	X		X	X	
	18) Check Hi wetwell float	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	
	19) Clean floats if necessary	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	
	20) Check channel for debris	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	
Heater	21) Heater working					X	X						X		X	X			X			X
Station	22) Police around station	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	
Exhaust Fan	23) Check operation	X	X	X	X			X	X	X	X	X	X	X	X	X	X	X	X	X	X	
	24) Visual Check Only	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	
TOTAL MAN HOURS																						

REMARKS:

WETWELL AREA SUBMERSIBLE STATION PREVENTATIVE MAINTENANCE RECORD
 FOR THE WEEK BEGINNING: _____ COMPLETED BY: _____

		Barrington Hills	Barrington Hills F	Bridgestone	Centurion	Cleves	Dellers Glen	Durango Gree	Foley Forest	Harrison ave.	Indian Creek T.P.	Muddy Crk P.S.	Muddy Crk T.P.	North Bay Village	Shady Lane (A)	Shady Lane (Q)	Stream Wood	Taylor Rd.	Westport	Windmere
Raw Sewage Pumps	1) Pump #1 Hour Meter																			
	2) Pump #2 Hour Meter																			
	3) #1 Motor Amps																			
	4) #2 Motor Amps																			
Wetwell	5) Check Alternator	X	X	X	X		X	X	X	X				X	X	X	X	X	X	X
	6) Check pump start/stop floats	X	X	X	X		X	X	X	X				X	X	X	X	X	X	X
	7) Check High wetwell float	X	X	X	X	X	X	X	X	X				X	X	X	X	X	X	X
	8) Clean floats if necessary	X	X	X	X	X	X	X	X	X				X	X	X	X	X	X	X
Station	9) Check channel for debris	X	X	X	X		X	X	X	X				X	X	X	X	X	X	X
	10) Police around station	X	X	X	X	X	X	X	X	X				X	X	X	X	X	X	X
	11) Visual Check Only	X	X	X	X	X	X	X	X	X				X	X	X	X	X	X	X
Generator	12) Hour Meter Reading																			
	13) Fuel Level																			
	14) Engine Oil	X		X	X	X	X	X	X	X	X	X	X	X	X	X		X		X
	15) Engine Coolant	X		X	X	X	X	X	X	X	X	X	X	X	X	X		X		X
	16) Battery Condition	X		X	X	X	X	X	X	X	X	X	X	X	X	X		X		X
	17) Charging System	X		X	X	X	X	X	X	X	X	X	X	X	X	X		X		X
	18) Fan Belts	X		X	X	X	X	X	X	X	X	X	X	X	X	X		X		X
	19) Tellit "Generator Run" Signal	X		X	X	X	X	X	X	X	X	X	X	X	X	X		X		X
	20) Tellit "Transfer Switch" Signal	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X		X		X
Transfer Switch	20) Check Operation		X								X						X		X	
	TOTAL MAN HOURS																			

REMARKS: _____

4302

Muddy Creek

AIR - QUARTERLY

R 31

M003

MSD DIVISIONAL
PREVENTIVE MAINTENANCE FORM

Procedure Number MCA _____

TITLE: MC, AIR-LIFT STATION QUARTERLY PM

Perform the QUARTERLY PM for the equipment listed below using the standard job steps for that equipment. If additional work is required to repair the equipment, other than PM, initiate a separate work order for that equipment. Complete all PM task first before attempting any repairs.

if you find additional steps are necessary to complete the PM, write the steps in the comment section and alert your supervisor of the additional steps.

DAY OF THE WEEK: -

COST CENTER OR EQUIPMENT NUN4BER: SEE LIST BELOW-

CRAFT: 11 NUN4BER OF MEN 2

ESTIMATED HOURS: 2.0i @@ -t a

JOB STEPS

Standard job steps for the QUARTERLY PM on the
AIR-LIFT STATIONS in the
MUDDY CREEK TP. AREA

*** VISUALLY INSPECT EQUIPMENT AND AREA AND NOTE ANY PROBLEMS ***

- 1) NOTIFY PLANT OPERATIONS AND CENTREX THAT YOU ARE DOING THE PM 2)
PULL ELECTRODES AND CHECK/MPLACE TIEP
- 3) R&R 3-WAY VALVE
- 4) R&R AIR PRESSURE REGULATOR, CLEAN SCREEN.

Prepared by : JIN4COOPER/TOM MILLER - _____

Date: 1/27/2000- -, @

Master File Name PMDESCMS.DOC

7-9-98

File each new file as PM-MCA -.doc The space is for each plant use plant letters and then 4 digits.

Once this procedure is entered into mapcon save as PM doc the spaces for Mapcon Number. Also enter Mapcon procedure number at the top of this form. Behind Procedure Number

Muddy Creek

Sheet 1

SUBMRS QTR 1.xls

1 of 2
M004

QUARTERLY SUBMERSIBLE PM			Sheet 1		QUARTERLY SUBMERSIBLE PM		QUARTERLY SUBMERSIBLE PM		QUARTERLY SUBMERSIBLE PM		QUARTERLY SUBMERSIBLE PM		QUARTERLY SUBMERSIBLE PM		QUARTERLY SUBMERSIBLE PM		QUARTERLY SUBMERSIBLE PM		QUARTERLY SUBMERSIBLE PM		QUARTERLY SUBMERSIBLE PM		QUARTERLY SUBMERSIBLE PM		QUARTERLY SUBMERSIBLE PM		QUARTERLY SUBMERSIBLE PM		QUARTERLY SUBMERSIBLE PM		QUARTERLY SUBMERSIBLE PM		QUARTERLY SUBMERSIBLE PM		QUARTERLY SUBMERSIBLE PM		QUARTERLY SUBMERSIBLE PM		QUARTERLY SUBMERSIBLE PM		QUARTERLY SUBMERSIBLE PM		QUARTERLY SUBMERSIBLE PM		QUARTERLY SUBMERSIBLE PM		QUARTERLY SUBMERSIBLE PM		QUARTERLY SUBMERSIBLE PM		QUARTERLY SUBMERSIBLE PM		QUARTERLY SUBMERSIBLE PM		QUARTERLY SUBMERSIBLE PM		QUARTERLY SUBMERSIBLE PM		QUARTERLY SUBMERSIBLE PM		QUARTERLY SUBMERSIBLE PM		QUARTERLY SUBMERSIBLE PM		QUARTERLY SUBMERSIBLE PM		QUARTERLY SUBMERSIBLE PM		QUARTERLY SUBMERSIBLE PM		QUARTERLY SUBMERSIBLE PM		QUARTERLY SUBMERSIBLE PM		QUARTERLY SUBMERSIBLE PM		QUARTERLY SUBMERSIBLE 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PM DESCRIPTION

MILLCREEK TREATMENT PLANT

Page:1

PM: PM0119 Type: PM Title: <E" SUBMERSIBLE STATION SEMI ANNUAL PM -----

WO Status: P Allow Multiple Wos: I Priority: E

PM DESCRIPTION

PERFORM THE SEMI-ANNUAL PM FOR THE EQUIPMENT LISTED BELOW USING THE STANDARD JOB STEPS FOR THAT EQUIPMENT. IF ADDITIONAL WORK IS REQUIRED TO REPAIR THE EQUIPMENT OTHER THAN PM, INITIATE A SEPARATE WORK ORDER FOR THAT EQUIPMENT. COMPLETE ALL PM TASKS FIRST BEFORE ATTEMPTING ANY REPAIRS. IF YOU FIND ADDITIONAL JOB STEPS ARE NECESSARY TO COMPLETE THE PM, WRITE THE STEPS IN THE COMMENT SECTION AND ALERT YOUR SUPERVISOR OF THE ADDITIONAL STEPS.

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JOB STEPS

ET WELL SEMI-ANNUAL SUMBERSIBLE PUMP STATION PM
TEST PUMP PERFORMANCE & RECORD PUMP HOURS
FLOW P#1 HOURS P#1 FLOW P#2 HOURS P#2

P

P-#t-x

CHECK FOR GREASE AND DEBRIS - SCHEDULE CLEANING IF NEEDED
CHECK PUMP MECHANICAL SEAL OIL

VALVE CHAMBER

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CHECK PUMP PERFORMANCE

FLOW DISCHARGE PRESSURE

INSPECT CHECK VALVE AND OPERATE

EXERCISE ISOLATION VALVES AND TEST

REPORT ANY CORROSION AND GENERATE PAINT LIST

CONTROLS

CHECK ALTERNATOR AND REPAIR

VISUALLY INSPECT CONTROL PANEL WIRING

CLEAN STARTER CONTACTS

C Wi \$@-Cm &@ t@ r-r-F l-t, f C-i -f0 \$-ji

HOUSE-KEEPING

LEAN UP ALL SPILLS

CLEAN UP STATION SUROUNDINGS - SCHEDULE MAJOR CLEANING

TELEMETERING

LIFT HIGH WET WELL FLOAT AND VERIFY OPERATION

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Muddy Creek

ANNUAL - PM.rtf
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PM DESCRIPTION

MILLCREEK TREATMENT PLANT

Page:1

PM: PM0025 Type: PM Title: ELECTRICAL GENERAL PM ANNUAL

WO Status: P

Allow Multiple WOs: 1

Priority: E

PM DESCRIPTION

ANNUALLY - 1. CHECK STARTER AND ALL CONTROLS
2. TIGHTEN ALL SCREWS AND/OR ALL CONNECTIONS
3. GREASE MOTOR BRGS IF NOT SEALED BRGS
4. RECORD MEGGAR READINGS

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IDescription

Polk Run WWTP

MSD DIVISIONAL
PREVENTIVE MAINTENANCE FORM

Procedure Number _____

TITLE: POLK RUN PUMP STATION – WEEKLY PM
PROCEDURE

Perform the ___ WEEKLY ___ PM for the equipment listed below using the standard job steps for that equipment. If additional work is required to repair the equipment, other than PM, initiate a separate work order for that equipment. Complete all PM task first Before attempting any repairs.

If you find additional steps are necessary to complete the PM, write the steps in the comment Section and alert your supervisor of the additional steps.

DAY OF THE WEEK: ___ FRIDAY _____
COST CENTER OR EQUIPMENT NUMBER: ___ P01-01.01-A001 ___
CRAFT: 25 & 27 ___ NUMBER OF MEN ___ 2 _____
ESTIMATED HOURS: ___ 3.5 _____

JOB STEPS

Standard job steps for the ___ WEEKLY ___ PM on the
___ POLK RUN PUMP STATION EQUIPMENT ___ in the

___ POLK RUN PUMP STATION BUILDING AND OUTSIDE AREA ___
LOCATION :

FROM Loveland Madeira Road and Kemper Road.

Go (1/10) mile south on Loveland Madeira Road. The station is on the right. Fenced area.

*** VISUALLY INSPECT EQUIPMENT AND AREA AND NOTE ANY PROBLEMS ***

- 0) **NOTE : SAFETY – CHECK VENTILATION FAN UNIT IN BACK OF STATION FOR CONTINUOUS OPERATION (BEFORE ENTERING) BUILDING. OPEN ACCESS DOOR IN FRONT OF BUILDING FOR POSSIBLE WATER IN BASEMENT (DRY WELL AREA). CHECK WET WELL FOR POSSIBLE FLOODING CONDITION. (RESET FOR VENTILATION FAN IS ONE LEVEL DOWN AT MOTOR CONTROL CENTER).**

- 1) Check Foxboro level transmitter reading with control room operator level reading.
- 2) Open the equipment access hatch to the dry well and check for water or flooding condition. Report to Maintenance immediately.
- 3) Go one level down – Check Inverter for power. Check controller for power, during normal operation (RED) indicator for pump failure is (ON), selector dial for pump sequence is set on (1-3).

During normal operation the pump settings will have pump #3 (ON) with selector set to (VAR SPD) variable speed being controlled by computer analog signals and pump #1 will not be running selector set to (AUTO FS) auto full speed being controlled as a backup by bubbler system. Check control panel to ensure both air compressors set to (ON) position.

- 4) Check Regulated Battery Charger (SENS UNIT) for (25 volts reading).
- 5) Check Elevator light, replace if needed.
- 6) Check Elevator (PHONE FOR DIAL TONE), before using elevator.
- 7) Check (VFD's) lights (Push to Test) and air filters.
- 8) Check MCC (Motor Control Center) lights (Push to Test).
- 9) Air Compressors (2) – check pressure gauges (3) should read (80 PSI) each. Check (oil level, belts, air filter & oil filter).
- 10) Air Compressors (2) – Drain condensation from tanks.
- 11) Raw Sewage Pumps (3) – basement –Check (SEALS, SHAFTS, NOISE FROM PUMPS, GAUGES & CHECK ANTI-FREEZE LEVEL USED FOR SEAL LUBRICATION).
- 12) Check Sump Pumps (2) for proper operation & test floats.
- 13) Check lights in ceiling and emergency lighting units. Replace as needed.

Prepared by : _____
Date: _____

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7-9-98

File each new file as PM_____.doc The space is for each plant use plant letters and then 4 digits.
Once this procedure is entered into mapcon save as PM_____.doc the spaces for Mapcon Number.
Also enter Mapcon procedure number at the top of this form. Behind Procedure Number

MSD DIVISIONAL
PREVENTIVE MAINTENANCE FORM

Procedure Number _____

TITLE: POLK RUN PUMP STATION – BI-YEARLY PM
PROCEDURE

Perform the ___BI-YEARLY___ PM for the equipment listed below using the standard job steps for that equipment. If additional work is required to repair the equipment, other than PM, initiate a separate work order for that equipment. Complete all PM task first Before attempting any repairs.

If you find additional steps are necessary to complete the PM, write the steps in the comment Section and alert your supervisor of the additional steps.

DAY OF THE WEEK: ___FRIDAY_____
COST CENTER OR EQUIPMENT NUMBER: ___P01-L001_____
CRAFT: 25 & 27 ___ NUMBER OF MEN ___2_____
ESTIMATED HOURS: ___6.0

JOB STEPS

Standard job steps for the ___BI-YEARLY___ PM on the
___LEVEL TRANSMITTER ___-FOXBORO - one level down___ in the
___POLK RUN PUMP STATION BUILDING AND OUTSIDE AREA___
LOCATION :

FROM Loveland Madeira Road and Kemper Road.

Go (1/10) mile south on Loveland Madeira Road. The station is on the right. Fenced area.

*** VISUALLY INSPECT EQUIPMENT AND AREA AND NOTE ANY PROBLEMS ***

- 0) **NOTE : SAFETY – CHECK VENTALATION FAN UNIT IN BACK OF STATION FOR CONTINUOUS OPERATION (BEFORE ENTERING) BUILDING. OPEN ACCESS DOOR IN FRONT OF BUILDING FOR POSSIBLE WATER IN BASEMENT (DRY WELL AREA). CHECK WET WELL FOR POSSIBLE FLOODING CONDITION. (RESET FOR VENTALATION FAN IS ONE LEVEL DOWN AT MOTOR CONTROL CENTER).**

- 1) Check Foxboro level transmitter reading with control room operator level reading.
- 2) Remove sensor from wet well to calibrate. Follow calibration procedure as outlined in Foxboro Maintenance Manual.
- 3) Use Transmation Calibrator to test full range of transmitter (0-100%) of range. (verify LEVEL readings with operator in control room)
- 4) Install Calibration Sticker on Level Transmitter.
- 5) Verify reading of Transmitter Level to level reading in control room with Operator.

Prepared by : _____

Date: _____

Master File Name PMDESCMS.DOC

7-9-98

File each new file as PM_____.doc The space is for each plant use plant letters and then 4 digits.

Once this procedure is entered into mapcon save as PM_____.doc the spaces for Mapcon Number.

Also enter Mapcon procedure number at the top of this form. Behind Procedure Number

MSD DIVISIONAL
PREVENTIVE MAINTENANCE FORM

Procedure Number _____

TITLE: POLK RUN PUMP STATION – BI-YEARLY PM
PROCEDURE

Perform the ____BI-YEARLY__ PM for the equipment listed below using the standard job steps for that equipment. If additional work is required to repair the equipment, other than PM, initiate a separate work order for that equipment. Complete all PM task first Before attempting any repairs.

If you find additional steps are necessary to complete the PM, write the steps in the comment Section and alert your supervisor of the additional steps.

DAY OF THE WEEK: __FRIDAY_____
COST CENTER OR EQUIPMENT NUMBER: __P01-F001_____
CRAFT: 25 & 27 __ NUMBER OF MEN __2_____
ESTIMATED HOURS: __4.0

JOB STEPS

Standard job steps for the __BI-YEARLY__ PM on the
____FLOW TRANSMITTER ____ for the

__POLK RUN PUMP STATION – TRANSMITTER IN TUNNEL AT POLK RUN
TREATMENT PLANT_
LOCATION :

9744 EAST KEMPER ROAD / LOVELAND, OHIO 45140

*** VISUALLY INSPECT EQUIPMENT AND AREA AND NOTE ANY PROBLEMS ***

- 1) Check Foxboro chart recorder flow in Admin. Bldg. for movement and reading.(MGD) (verify flow (MGD) with control room computer screen)
- 2) Check Foxboro transmitter for reading that will match recorder reading. (MGD) (verify flow with control room computer screen)
- 3) Follow calibration procedure as outlined in Foxboro Maintenance Manual. (DO138NG / BK2891 FOXBORO MANUAL)

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- 4) Use Transmation Calibrator to test full range of transmitter (0-100%) of range.(verify readings with control room computer screen).
- 5) Check Foxboro flow chart recorder when performing each calibration step.
- 6) Install Calibration Sticker on Flow Transmitter and Chart Recorder.
- 7) Verify reading of Transmitter Flow with Chart Recorder Flow reading to Flow reading in control room on computer screen.

Prepared by : _____
Date: _____

Master File Name PMDESCMS.DOC
7-9-98

File each new file as PM____.doc The space is for each plant use plant letters and then 4 digits.
Once this procedure is entered into mapcon save as PM____.doc the spaces for Mapcon Number.
Also enter Mapcon procedure number at the top of this form. Behind Procedure Number

MSD DIVISIONAL
PREVENTIVE MAINTENANCE FORM

Procedure Number _____

TITLE: HARPER PUMP STATION – WEEKLY PM PROCEDURE

Perform the ___ WEEKLY ___ PM for the equipment listed below using the Standard job steps for that equipment. If additional work is required to repair the equipment, other than PM, initiate a separate work order for that equipment. Complete all PM tasks first Before attempting any repairs.

If you find additional steps are necessary to complete the PM, write the steps in the comment Section and alert your supervisor of the additional steps.

DAY OF THE WEEK : ___ FRIDAY _____
COST CENTER OR EQUIPMENT NUMBER : ___ P02-01.01-A001 _____
CRAFT: 11 & 27. _____ NUMBER OF MEN ___ 2 _____
ESTIMATED HOURS: ___ 2.0 _____

JOB STEPS

Standard job steps for the ___ WEEKLY ___ - INSPECTION ___ PM on the
___ EQUIPMENT ___ in the

___ HARPER PUMP STATION BUILDING AND OUTSIDE AREA ___
LOCATION :

FROM WEST LOVELAND AVE. AND WALL STREET.

Go north on Wall St. and turn right on Harper Ave. The station is at the end of Harper Ave. To get to station go through Park, drive to end of road through Park, station is on right side.

*** VISUALLY INSPECT EQUIPMENT AND AREA AND NOTE ANY PROBLEMS ***

- 1) Check Foxboro chart recorder for movement and reading.(gpm & ft)
(verify level (FT) with control room operator)
- 2) Check Foxboro transmitter for reading that will match recorder
reading. (GPM) (verify flow with control room operator)
- 3) Motor Control Center – Check all light bulbs on (VFD)& (MCC)
panels and mechanical totalizer (6) for proper operation. (Push to
Test)

- 4) MCC – Check drive speed display for operation.
- 5) MCC – Check bearing temperature display (low bearing temperature) for pumps (1,2 &3).
- 6) MCC – Check logic controller for display operation and reading.
- 7) VFD's – Check and replace air filters as needed. (17 total)
- 8) Check and replace building air filters (2) as needed.
- 9) Check building exhaust damper for constant fan operation.
- 10) Check emergency light unit on wall for proper operation.(TEST)

11) MUFFIN MONSTER- #2 Hydraulic Power Unit checks.

Check power on lights and green run lights at panel.

Oil level in sight glass up to black line.

Temperature in sight glass between (60 & 140 Degrees F).

The pressure gauges should be less than (2000 PSI) – two gauges.

Oil filter gauges LESS THAN (15 PSI).

Check for oil leaks in hydraulic lines.

- 12) OUTSIDE – Check wet well for sewage build up or grease. Open access doors, USE PROPER SAFETY PROCEDURES.

- 13) At the Kohler Generator box on the wall next to MCC, check that the (System Ready) and (Line Power) lights are lit.

Prepared by : _____

Date: _____

Master File Name PMDESCMS.DOC

7-9-98

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Also enter Mapcon procedure number at the top of this form. Behind Procedure Number

MSD DIVISIONAL
PREVENTIVE MAINTENANCE FORM

Procedure Number _____

TITLE: HARPER PUMP STATION – BI-YEARLY PM
PROCEDURE

Perform the ___BI-YEARLY___ PM for the equipment listed below using the standard job steps for that equipment. If additional work is required to repair the equipment, other than PM, initiate a separate work order for that equipment. Complete all PM task first Before attempting any repairs.

If you find additional steps are necessary to complete the PM, write the steps in the comment Section and alert your supervisor of the additional steps.

DAY OF THE WEEK: ___FRIDAY___
COST CENTER OR EQUIPMENT NUMBER: ___P02-L001___
CRAFT: 25 & 27 ___ NUMBER OF MEN ___2___
ESTIMATED HOURS: ___5.5

JOB STEPS

Standard job steps for the ___BI-YEARLY___ PM on the
___LEVEL TRANSMITTER___ in the

___HARPER PUMP STATION BUILDING AND OUTSIDE AREA___
LOCATION :

FROM WEST LOVELAND AVE. AND WALL STREET.

Go north on Wall St. and turn right on Harper Ave. The station is at the end of Harper Ave. To get to station go through Park, drive to end of road through Park, station is on right side.

*** VISUALLY INSPECT EQUIPMENT AND AREA AND NOTE ANY PROBLEMS ***

- 1) Check Foxboro chart recorder for movement and reading.(gpm & ft)
(verify level (FT) & (GPM) with control room operator)
- 2) Check Foxboro Level transmitter for reading that will match chart recorder reading. (FT) (verify level with control room operator)
- 3) Remove sensor from wet well to calibrate. Follow calibration procedure as outlined in Foxboro Maintenance Manual.

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INSPECT

- 4) Use Transmation Calibrator to test full range of transmitter (0-100%) of range. (verify LEVEL readings with operator in control room)
- 5) Check Foxboro chart recorder when performing each cailbration step.
- 6) Install Calibration Sticker on Level Transmitter and Chart Recorder.
- 7) Verify reading of Transmitter Level with Chart Recorder Level to Level reading in control room with Operator.
- 8) OUTSIDE – Check wet well for sewage build up or grease. Open access doors, USE PROPER SAFETY PROCEDURES.

Prepared by : _____

Date: _____

Master File Name PMDESCMS.DOC

7-9-98

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MSD DIVISIONAL
PREVENTIVE MAINTENANCE FORM

Procedure Number _____

TITLE: HARPER PUMP STATION – BI-YEARLY PM
PROCEDURE

Perform the ___BI-YEARLY___ PM for the equipment listed below using the standard job steps for that equipment. If additional work is required to repair the equipment, other than PM, initiate a separate work order for that equipment. Complete all PM task first Before attempting any repairs.

If you find additional steps are necessary to complete the PM, write the steps in the comment Section and alert your supervisor of the additional steps.

DAY OF THE WEEK: ___FRIDAY_____
COST CENTER OR EQUIPMENT NUMBER: ___P02-F001_____
CRAFT: 25 & 27 ___ NUMBER OF MEN ___2_____
ESTIMATED HOURS: ___4.0_____

JOB STEPS

Standard job steps for the ___BI-YEARLY___ PM on the
___FLOW TRANSMITTER___ in the

___HARPER PUMP STATION BUILDING AND OUTSIDE AREA___
LOCATION :

FROM WEST LOVELAND AVE. AND WALL STREET.

Go north on Wall St. and turn right on Harper Ave. The station is at the end of Harper Ave. To get to station go through Park, drive to end of road through Park, station is on right side.

*** VISUALLY INSPECT EQUIPMENT AND AREA AND NOTE ANY PROBLEMS ***

- 1) Check Foxboro chart recorder for movement and reading.(gpm & ft)
(verify flow (GPM) with control room operator)
- 2) Check Foxboro transmitter for reading that will match recorder
reading. (GPM) (verify flow with control room operator)
- 3) Remove flow sensor to calibrate. Follow calibration procedure as
outlined in Foxboro Maintenance Manual.

- 4) Use Transmation Calibrator to test full range of transmitter (0-100%) of range. (verify readings with operator in control room)
- 5) Check Foxboro chart recorder when performing each calibration step.
- 6) Install Calibration Sticker on Flow Transmitter and Chart Recorder.
- 7) Verify reading of Transmitter Flow with Chart Recorder Flow reading to Flow reading in control room with Operator.
- 8) OUTSIDE – Check wet well for sewage build up or grease. Open access doors, USE PROPER SAFETY PROCEDURES.

Prepared by : _____

Date: _____

Master File Name PMDESCMS.DOC

7-9-98

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MSD DIVISIONAL
PREVENTIVE MAINTENANCE FORM

Procedure Number _____

TITLE: ACOMB PUMP STATION – WEEKLY PM
EQUIPMENT NO. – P03-01.01-A001

Perform the ____ WEEKLY ____ PM for the equipment listed below using the standard job steps for that equipment. If additional work is required to repair the equipment, other than PM, initiate a separate work order for that equipment. Complete all PM task first before attempting any repairs.

If you find additional steps are necessary to complete the PM, write the steps in the comment section and alert your supervisor of the additional steps.

DAY OF THE WEEK : FRIDAY_
COST CENTER OR EQUIPMENT NUMBER : _P03-01.01-A001 CRAFT:
11 & 27 NUMBER OF MEN ____2____
ESTIMATED HOURS: __.7____

JOB STEPS

Standard job steps for the ____ WEEKLY ____ PM on the
____ PUMP STATION ____ at the following location :

_From Kemper Rd. & Loveland-Madeira Rd. go West on Kemper Rd.. After crossing
Mckinney Rd. go an additional ½ mile and turn left on Weller Rd. Station is on the
right ½ mile from the turn.

*** INSPECT EQUIPMENT AND AREA AND NOTE ANY PROBLEMS ***

- 1) Follow Safety Call in procedure when working alone at pump station. Carry Cell Phone.
- 2) PUMPS : *CHECK PUMP OPERATION*
- 3) ELECTRICAL : *CHECK ALL WIRING (VISUALLY FOR POSSIBLE PROBLEMS).*
- 4) : *CHECK ALL PANEL LIGHTS FOR BURNT OUT BULBS / REPLACE.*
- 5) : *CHECK WELL FLOATS FOR DEBRIS BUILD-UP.*
- 6)
- 7) HOURS METER READING : RECORD NUMBERS ON PM SHEET & LOG BOOK.
- 8) PUMP #1 :
- 9) PUMP #2 :
- 10) HOUSE CLEANING :
- 11) *CHECK WELL FOR DEBRIS BUILD-UP*
- 12) *CLEANING UP AROUND STATION - MAINTAIN CLEAN AREA*
- 13)
- 14) WRITE WORK ORDER FOR ANY REPAIRS FOUND OR REPAIRS MADE.

Prepared by : _____ / NAME OF TEAM MEMBER :

Date: _____ / DATE OF WORK PERFORM :

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MSD DIVISIONAL
PREVENTIVE MAINTENANCE FORM

Procedure Number _____

/SHELDON

TITLE: CREEKSIDE PUMP STATION – BI-WEEKLY PM
EQUIPMENT NO. – P04-01.01-A001

Perform the ____BI-WEEKLY____ PM for the equipment listed below using the standard job steps for that equipment. If additional work is required to repair the equipment, other than PM, initiate a separate work order for that equipment. Complete all PM task first before attempting any repairs.

If you find additional steps are necessary to complete the PM, write the steps in the comment section and alert your supervisor of the additional steps.

DAY OF THE WEEK : FRIDAY_

COST CENTER OR EQUIPMENT NUMBER : _P04-01.01-A001

CRAFT:

__11 & 27__ NUMBER OF MEN ____2____

ESTIMATED HOURS: __.7____

JOB STEPS

Standard job steps for the ____BI-WEEKLY____ PM on the
____PUMP STATION____ at the following location :

*** INSPECT EQUIPMENT AND AREA AND NOTE ANY PROBLEMS ***

- 1) Follow Safety Call in procedure when working alone at pump station. Carry Cell Phone.
- 2) GENERATOR : *CHECK FUEL LEVEL. / CHECK HOSES*
- 3) : *CHECK HEATER OPERATION*
- 4) ELECTRICAL : *CHECK ALL WIRING (VISUALLY FOR POSSIBLE PROBLEMS).*
- 5) : *CHECK ALL PANEL LIGHTS FOR BURNT OUT BULBS / REPLACE.*
- 6) : *CHECK WELL FLOATS FOR DEBRIS BUILD-UP.*
- 7) : *TEST RUN PUMPS*
- 8) HOURS METER READING : RECORD NUMBERS ON PM SHEET & LOG BOOK.
- 9) PUMP #1 :
- 10) PUMP #2 :
- 11) GENERATOR :
- 12) HOUSE CLEANING :
- 13) *CHECK WELL FOR DEBRIS BUILD-UP*
- 14) *CLEANING UP AROUND STATION - MAINTAIN CLEAN AREA*
- 15)
- 16) WRITE WORK ORDER FOR ANY REPAIRS FOUND OR REPAIRS MADE.

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MSD DIVISIONAL
PREVENTIVE MAINTENANCE FORM

Procedure Number _____

TITLE: HUNTINGTON PUMP STATION – BI-WEEKLY PM
EQUIPMENT NO. – P05-01.01-A001

Perform the ____ BI-WEEKLY ____ PM for the equipment listed below using the standard job steps for that equipment. If additional work is required to repair the equipment, other than PM, initiate a separate work order for that equipment. Complete all PM task first before attempting any repairs.

If you find additional steps are necessary to complete the PM, write the steps in the comment section and alert your supervisor of the additional steps.

DAY OF THE WEEK : FRIDAY ____
COST CENTER OR EQUIPMENT NUMBER : _P05-01.01-A001 CRAFT:
__11 & 27__ NUMBER OF MEN ____2____
ESTIMATED HOURS: __.7____

JOB STEPS

Standard job steps for the ____ BI-WEEKLY ____ PM on the
____ PUMP STATION ____ at the following location :
_From I-275 & Wards Corner drive north on Wards Corner Rd. for several miles to
Huntington Drive. The pump station is located at the end of the street.

*** INSPECT EQUIPMENT AND AREA AND NOTE ANY PROBLEMS ***

- 1) Follow Safety Call in procedure when working alone at pump station. Carry Cell Phone.
- 2) GENERATOR : *CHECK FUEL LEVEL. / CHECK HOSES*
- 3) : *CHECK HEATER OPERATION*
- 4) ELECTRICAL : *CHECK ALL WIRING (VISUALLY FOR POSSIBLE PROBLEMS).*
- 5) : *CHECK ALL PANEL LIGHTS FOR BURNT OUT BULBS / REPLACE.*
- 6) : *CHECK WELL FLOATS FOR DEBRIS BUILD-UP.*
- 7)
- 8) HOURS METER READING : RECORD NUMBERS ON PM SHEET & LOG BOOK.
- 9) PUMP #1 :
- 10) PUMP #2 :
- 11) GENERATOR :
- 12) HOUSE CLEANING :
- 13) *CHECK WELL FOR DEBRIS BUILD-UP*
- 14) *CLEANING UP AROUND STATION - MAINTAIN CLEAN AREA*
- 15)
- 16) WRITE WORK ORDER FOR ANY REPAIRS FOUND OR REPAIRS MADE.

Prepared by : _____ / NAME OF TEAM MEMBER :
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MSD DIVISIONAL
PREVENTIVE MAINTENANCE FORM

Procedure Number _____

TITLE: *RETWOOD ESTATES*
RETVIEW PUMP STATION – BI-WEEKLY PM
EQUIPMENT NO. – P06-01.01-A001

Perform the BI-WEEKLY PM for the equipment listed below using the standard job steps for that equipment. If additional work is required to repair the equipment, other than PM, initiate a separate work order for that equipment. Complete all PM task first before attempting any repairs.

If you find additional steps are necessary to complete the PM, write the steps in the comment section and alert your supervisor of the additional steps.

DAY OF THE WEEK : FRIDAY_
COST CENTER OR EQUIPMENT NUMBER : P06-01.01-A001 CRAFT:
11 & 27 NUMBER OF MEN 2
ESTIMATED HOURS: .7

JOB STEPS

Standard job steps for the BI-WEEKLY PM on the
PUMP STATION at the following location :
_From Kemper Road & McKinney Road go north on McKinney Rd. and turn left on
Enyart Rd. Turn right on Pinewood Drive. Turn right on Retview. The station driveway
is 2/10 mile on the left. Note : Access to station is not on Pinewood.

*** INSPECT EQUIPMENT AND AREA AND NOTE ANY PROBLEMS ***

- 1) Follow Safety Call in procedure when working alone at pump station. Carry Cell Phone.
- 2) GENERATOR : *CHECK FUEL LEVEL. / CHECK HOSES*
- 3) : *CHECK HEATER OPERATION*
- 4) ELECTRICAL : *CHECK ALL WIRING (VISUALLY FOR POSSIBLE PROBLEMS).*
- 5) : *CHECK ALL PANEL LIGHTS FOR BURNT OUT BULBS / REPLACE.*
- 6) : *CHECK WELL FLOATS FOR DEBRIS BUILD-UP.*
- 7)
- 8) HOURS METER READING : RECORD NUMBERS ON PM SHEET & LOG BOOK.
- 9) *PUMP #1 :*
- 10) *PUMP #2 :*
- 11) *GENERATOR :*
- 12) HOUSE CLEANING :
- 13) *CHECK WELL FOR DEBRIS BUILD-UP*
- 14) *CLEANING UP AROUND STATION - MAINTAIN CLEAN AREA*
- 15)

16) WRITE WORK ORDER FOR ANY REPAIRS FOUND OR REPAIRS MADE.

Prepared by : _____ / NAME OF TEAM MEMBER :
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MSD DIVISIONAL
PREVENTIVE MAINTENANCE FORM

Procedure Number _____

TITLE: RIVER OAKS PUMP STATION – BI-WEEKLY PM
EQUIPMENT NO. – P07-01.01-A001

Perform the ____ BI-WEEKLY ____ PM for the equipment listed below using the standard job steps for that equipment. If additional work is required to repair the equipment, other than PM, initiate a separate work order for that equipment. Complete all PM task first before attempting any repairs.

If you find additional steps are necessary to complete the PM, write the steps in the comment section and alert your supervisor of the additional steps.

DAY OF THE WEEK : FRIDAY_
COST CENTER OR EQUIPMENT NUMBER : _P07-01.01-A001 CRAFT:
11 & 27 NUMBER OF MEN _2_
ESTIMATED HOURS: _7_

JOB STEPS

Standard job steps for the ____ BI-WEEKLY ____ PM on the
____ PUMP STATION ____ at the following location :

_From Rich Road & Fallis Road travel north on Fallis Rd. about 500 feet, until you reach
Brentwood Lane on the right. The pump station is just before the end of Brentwood Lane
on the right.

*** INSPECT EQUIPMENT AND AREA AND NOTE ANY PROBLEMS ***

- 1) Follow Safety Call in procedure when working alone at pump station. Carry Cell Phone.
- 2) GENERATOR : *CHECK FUEL LEVEL. / CHECK HOSES*
- 3) : *CHECK HEATER OPERATION*
- 4) ELECTRICAL : *CHECK ALL WIRING (VISUALLY FOR POSSIBLE PROBLEMS).*
- 5) : *CHECK ALL PANEL LIGHTS FOR BURNT OUT BULBS / REPLACE.*
- 6) : *CHECK WELL FLOATS FOR DEBRIS BUILD-UP.*
- 7)
- 8) HOURS METER READING : RECORD NUMBERS ON PM SHEET & LOG BOOK.
- 9) PUMP #1 :
- 10) PUMP #2 :
- 11) GENERATOR :
- 12) HOUSE CLEANING :
- 13) *CHECK WELL FOR DEBRIS BUILD-UP*
- 14) *CLEANING UP AROUND STATION - MAINTAIN CLEAN AREA*
- 15)
- 16) WRITE WORK ORDER FOR ANY REPAIRS FOUND OR REPAIRS MADE.

Prepared by : _____ / NAME OF TEAM MEMBER :
Date: _____ / DATE OF WORK PERFORM :

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Sycamore Creek WWTP

MSD DIVISIONAL
PREVENTIVE MAINTENANCE FORM

Procedure Number _____

TITLE: HAGEMANTOWN PUMP STATION – WEEKLY PM
EQUIPMENT NO. – S06-01.01-A001

Perform the ____ WEEKLY ____ PM for the equipment listed below using the standard job steps for that equipment. If additional work is required to repair the equipment, other than PM, initiate a separate work order for that equipment. Complete all PM task first before attempting any repairs.

If you find additional steps are necessary to complete the PM, write the steps in the comment section and alert your supervisor of the additional steps.

DAY OF THE WEEK : FRIDAY_
COST CENTER OR EQUIPMENT NUMBER : _S06-01.01-A001 CRAFT:
__11 & 27__ NUMBER OF MEN ____2____
ESTIMATED HOURS: __.7____

JOB STEPS

Standard job steps for the ____ WEEKLY ____ PM on the
____ PUMP STATION ____ at the following location :
_From Reading Rd. & I-275 go South on Reading Rd. and turn right on Grooms Rd. The
station is near 11639 Grooms Rd.

*** INSPECT EQUIPMENT AND AREA AND NOTE ANY PROBLEMS ***

- 1) Follow Safety Call in procedure when working alone at pump station. Carry Cell Phone.
- 2) ELECTRICAL : CHECK ALL WIRING (VISUALLY FOR POSSIBLE PROBLEMS).
- 3) : CHECK ALL PANEL LIGHTS FOR BURNT OUT BULBS / REPLACE.
- 4) : CHECK WELL FLOATS FOR DEBRIS BUILD-UP.
- 5) HOURS METER READING : RECORD NUMBERS ON PM SHEET & LOG BOOK.
- 6) PUMP #1 :
- 7) PUMP #2 :
- 8) RAW SEWAGE PUMPS : CHECK MECHANICAL SEALS / LIBRICATE
- 9) CHECK (HAND & AUTO) OPERATION / ALTERNATE
- 10) SUMP PUMP & EXHAUST FAN : CHECK OPERATION OF SUMP PUMP
: LISTEN TO EXHAUST FAN FOR NOISE.
- 11) HOUSE CLEANING :
- 12) CHECK WELL FOR DEBRIS BUILD-UP
- 13) CLEANING UP AROUND STATION - MAINTAIN CLEAN AREA
- 14)
- 15) WRITE WORK ORDER FOR ANY REPAIRS FOUND OR REPAIRS MADE.

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MSD DIVISIONAL
PREVENTIVE MAINTENANCE FORM

Procedure Number _____

TITLE: HIGH POINT PUMP STATION – WEEKLY PM
 EQUIPMENT NO. – S07-01.01-A001

Perform the ____ WEEKLY ____ PM for the equipment listed below using the standard job steps for that equipment. If additional work is required to repair the equipment, other than PM, initiate a separate work order for that equipment. Complete all PM task first before attempting any repairs.

If you find additional steps are necessary to complete the PM, write the steps in the comment section and alert your supervisor of the additional steps.

DAY OF THE WEEK : FRIDAY_

COST CENTER OR EQUIPMENT NUMBER : _S07-01.01-A001

CRAFT:

__11 & 27__ NUMBER OF MEN ____2____

ESTIMATED HOURS: __1.0____

JOB STEPS

Standard job steps for the ____ WEEKLY ____ PM on the
____ PUMP STATION ____ at the following location :

_Go West on Kemper Rd. from Montgomery Rd. & Kemper Rd. to Conrey and turn right. Turn on School Rd. The station is on the left just across the railroad tracks.

*** INSPECT EQUIPMENT AND AREA AND NOTE ANY PROBLEMS ***

- 1) Follow Safety Call in procedure when working alone at pump station. Carry Cell Phone.
- 2) GENERATOR : *CHECK FUEL LEVEL. / TEST RUN GENERATOR. / CHECK HOSES*
- 3) : *CHECK HEATER OPERATION*
- 4) ELECTRICAL : *CHECK ALL WIRING (VISUALLY FOR POSSIBLE PROBLEMS).*
- 5) : *CHECK ALL PANEL LIGHTS FOR BURNT OUT BULBS / REPLACE.*
- 6) : *CHECK WELL FLOATS FOR DEBRIS BUILD-UP.*
- 7) HOURS METER READING : RECORD NUMBERS ON PM SHEET & LOG BOOK.
- 8) PUMP #1 :
- 9) PUMP #2 :
- 10) GENERATOR :
- 11) HOUSE CLEANING :
- 12) *CHECK WELL FOR DEBRIS BUILD-UP*
- 13) *CLEANING UP AROUND STATION - MAINTAIN CLEAN AREA*
- 14)
- 15) WRITE WORK ORDER FOR ANY REPAIRS FOUND OR REPAIRS MADE.

Prepared by : _____ / NAME OF TEAM MEMBER :
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MSD DIVISIONAL
PREVENTIVE MAINTENANCE FORM

Procedure Number _____

TITLE: JOHNSON ROAD AIR LIFT STATION – WEEKLY PM
EQUIPMENT NO. – S21-01.01-A001

Perform the _____ WEEKLY _____ PM for the equipment listed below using the standard job steps for that equipment. If additional work is required to repair the equipment, other than PM, initiate a separate work order for that equipment. Complete all PM task first before attempting any repairs.

If you find additional steps are necessary to complete the PM, write the steps in the comment section and alert your supervisor of the additional steps.

DAY OF THE WEEK : FRIDAY _____

COST CENTER OR EQUIPMENT NUMBER : _____ S21-01.01-A001

CRAFT:

_____ 11 & 27 _____ NUMBER OF MEN _____ 2 _____

ESTIMATED HOURS: _____ .7 _____

JOB STEPS

Standard job steps for the _____ WEEKLY _____ PM on the
_____ AIR _____ PUMP STATION _____ at the following location :

_____ From Kenwood Rd. & Euclid Rd. go South on Kenwood Rd. and turn right on Ckerokee Dr. Turn right on Johnson Rd. The station is three houses down in the front yard of 6052.

*** INSPECT EQUIPMENT AND AREA AND NOTE ANY PROBLEMS ***

- 1) Follow Safety Call in procedure when working alone at pump station. Carry Cell Phone.
- 2) COMPRESSOR : *CHECK OIL LEVEL STICK / CHECK BELTS FOR WEAR & TENSION. / CHECK AIR PRESSURE GAUGES*
- 3) ELECTRICAL : *CHECK ALL WIRING (VISUALLY FOR POSSIBLE PROBLEMS).*
- 4) : *CHECK ALL PANEL LIGHTS FOR BURNT OUT BULBS / REPLACE.*
- 5) THREE – WAY VALVE : *CHECK TIMER SETTING & OPERATION
CHECK AIR BLOW BACK IN WELL / REPORT ANY
VALVE CHATTERING.*
- 6) ELECTRODE : *CHECK FOR PROPER OPERATION*
- 7) HEATER UNIT : *CHECK HEATER OPERATION AND CLEAN UNIT.*
- 8) HOUSE CLEANING :
- 9) *CHECK WELL FOR DEBRI BUILD-UP*
- 10) *CLEANING UP AROUND STATION - MAINTAIN CLEAN AREA*
- 11) WRITE WORK ORDER FOR ANY REPAIRS FOUND OR REPAIRS MADE.

Prepared by : _____ / NAME OF TEAM MEMBER :

Date: _____ / DATE OF WORK PERFORM :

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MSD DIVISIONAL
PREVENTIVE MAINTENANCE FORM

Procedure Number _____

TITLE: CAMARGO CANYON PUMP STATION – BI-WEEKLY PM
EQUIPMENT NO. – S01-01.01-A001

Perform the ____BI-WEEKLY____ PM for the equipment listed below using the standard job steps for that equipment. If additional work is required to repair the equipment, other than PM, initiate a separate work order for that equipment. Complete all PM task first before attempting any repairs.

If you find additional steps are necessary to complete the PM, write the steps in the comment section and alert your supervisor of the additional steps.

DAY OF THE WEEK : FRIDAY_
COST CENTER OR EQUIPMENT NUMBER : _S01-01.01-A001 CRAFT:
__11 & 27__ NUMBER OF MEN ____2____
ESTIMATED HOURS: __1.0____

JOB STEPS

Standard job steps for the ____BI-WEEKLY____ PM on the
____PUMP STATION____ at the following location :
_Go south on Kenwood Rd. to Camargo Canyon and turn left. Bear left where the road splits. The station is on the left side of road.

*** VISUALLY INSPECT EQUIPMENT AND AREA AND NOTE ANY PROBLEMS ***

- 1) Follow Safety Call in procedure when working alone at pump station. Carry Cell Phone.
- 2) GENERATOR : *CHECK FUEL LEVEL. / CHECK HOSES*
- 3) : *CHECK HEATER OPERATION*
- 4) ELECTRICAL : *CHECK ALL WIRING (VISUALLY FOR POSSIBLE PROBLEMS).*
- 5) : *CHECK ALL PANEL LIGHTS FOR BURNT OUT BULBS / REPLACE.*
- 6) : *CHECK WELL FLOATS FOR DEBRIS BUILD-UP.*
- 7)
- 8) HOURS METER READING : RECORD NUMBERS ON PM SHEET & LOG BOOK.
- 9) PUMP #1 :
- 10) PUMP #2 :
- 11) GENERATOR :
- 12) HOUSE CLEANING :
- 13) *CHECK WELL FOR DEBRIS BUILD-UP*
- 14) *CLEANING UP AROUND STATION - MAINTAIN CLEAN AREA*
- 15)
- 16) WRITE WORK ORDER FOR ANY REPAIRS FOUND OR REPAIRS MADE.

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MSD DIVISIONAL
PREVENTIVE MAINTENANCE FORM

Procedure Number _____

TITLE: CARPENTER'S RUN PUMP STATION – BI-WEEKLY PM
EQUIPMENT NO. – S02-01.01-A001

Perform the ____BI-WEEKLY____ PM for the equipment listed below using the standard job steps for that equipment. If additional work is required to repair the equipment, other than PM, initiate a separate work order for that equipment. Complete all PM task first before attempting any repairs.

If you find additional steps are necessary to complete the PM, write the steps in the comment section and alert your supervisor of the additional steps.

DAY OF THE WEEK : FRIDAY_

COST CENTER OR EQUIPMENT NUMBER : _S01-01.01-A001

CRAFT:

__11 & 27__ NUMBER OF MEN ____2____

ESTIMATED HOURS: __.7____

JOB STEPS

Standard job steps for the ____BI-WEEKLY____ PM on the
____PUMP STATION____ at the following location :

_Go West on Cooper Rd. and turn right on Carpenter's Run. Turn left on Trailbridge. The station is next to 22 address.

*** INSPECT EQUIPMENT AND AREA AND NOTE ANY PROBLEMS ***

- 1) Follow Safety Call in procedure when working alone at pump station. Carry Cell Phone.
- 2) GENERATOR : CHECK FUEL LEVEL. / TEST RUN GENERATOR / CHECK OIL LEVEL
/ CHECK HOSES / CHECK HEATER OPERATION
- 3) ELECTRICAL : CHECK ALL WIRING (VISUALLY FOR POSSIBLE PROBLEMS).
- 4) : CHECK ALL PANEL LIGHTS FOR BURNT OUT BULBS / REPLACE.
- 5) : CHECK WELL FLOATS FOR DEBRIS BUILD-UP.
- 6) HOURS METER READING : RECORD NUMBERS ON PM SHEET & LOG BOOK.
- 7) GENERATOR :
- 8) RAW SEWAGE PUMPS : CHECK MECHANICAL SEALS / LIBRICATE
- 9) CHECK (HAND & AUTO) OPERATION / ALTERNATE
- 10) SUMP PUMP & EXHAUST FAN : CHECK OPERATION OF SUMP PUMP
: LISTEN TO EXHAUST FAN FOR NOISE.
- 11) HEATER & DEHUMIDIFIER : CHECK & CLEAN HEATER
CHECK AND CLEAN DEHUMIDIFIER
- 12) HOUSE CLEANING :
- 13) CHECK WELL FOR DEBRIS BUILD-UP
- 14) CLEANING UP AROUND STATION - MAINTAIN CLEAN AREA

15)

16) WRITE WORK ORDER FOR ANY REPAIRS FOUND OR REPAIRS MADE.

Prepared by : _____ / NAME OF TEAM MEMBER :
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Also enter Mapcon procedure number at the top of this form. Behind Procedure Number

MSD DIVISIONAL
PREVENTIVE MAINTENANCE FORM

Procedure Number _____

TITLE: GLENS LANDING PUMP STATION – BI-WEEKLY PM
EQUIPMENT NO. – S04-01.01-A001

Perform the ____ BI-WEEKLY ____ PM for the equipment listed below using the standard job steps for that equipment. If additional work is required to repair the equipment, other than PM, initiate a separate work order for that equipment. Complete all PM task first before attempting any repairs.

If you find additional steps are necessary to complete the PM, write the steps in the comment section and alert your supervisor of the additional steps.

DAY OF THE WEEK : FRIDAY_

COST CENTER OR EQUIPMENT NUMBER : _S04-01.01-A001

CRAFT:

11 & 27 NUMBER OF MEN ____2____

ESTIMATED HOURS: __.7____

JOB STEPS

Standard job steps for the ____ BI-WEEKLY ____ PM on the
____ PUMP STATION ____ at the following location :

_From Kemper Rd. & Princeton Pike (Tri-County Mall) , Go south on Princeton Pike
past Market Street. Continue travel about 100 feet. Pump station will be on the right.

*** INSPECT EQUIPMENT AND AREA AND NOTE ANY PROBLEMS ***

- 1) Follow Safety Call in procedure when working alone at pump station. Carry Cell Phone.
- 2) GENERATOR : *CHECK FUEL LEVEL. / CHECK HOSES*
- 3) : *CHECK HEATER OPERATION*
- 4) ELECTRICAL : *CHECK ALL WIRING (VISUALLY FOR POSSIBLE PROBLEMS).*
- 5) : *CHECK ALL PANEL LIGHTS FOR BURNT OUT BULBS / REPLACE.*
- 6) : *CHECK WELL FLOATS FOR DEBRIS BUILD-UP.*
- 7) HOURS METER READING : *RECORD NUMBERS ON PM SHEET & LOG BOOK.*
- 8) *GENERATOR :*
- 9) HOUSE CLEANING :
- 10) *CHECK WELL FOR DEBRIS BUILD-UP*
- 11) *CLEANING UP AROUND STATION - MAINTAIN CLEAN AREA*
- 12)
- 13) WRITE WORK ORDER FOR ANY REPAIRS FOUND OR REPAIRS MADE.

Prepared by : _____ / NAME OF TEAM MEMBER :

Date: _____ / DATE OF WORK PERFORM :

Master File Name PMDESCMS.DOC

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MSD DIVISIONAL
PREVENTIVE MAINTENANCE FORM

Procedure Number _____

TITLE: KEMPER INDUSTRIAL PUMP STATION – BI-WEEKLY
PM

EQUIPMENT NO. – S08-01.01-A001

Perform the ____ BI-WEEKLY ____ PM for the equipment listed below using the standard job steps for that equipment. If additional work is required to repair the equipment, other than PM, initiate a separate work order for that equipment. Complete all PM task first before attempting any repairs.

If you find additional steps are necessary to complete the PM, write the steps in the comment section and alert your supervisor of the additional steps.

DAY OF THE WEEK : FRIDAY_

COST CENTER OR EQUIPMENT NUMBER : _S08-01.01-A001

CRAFT:

11 & 27 NUMBER OF MEN ____2____

ESTIMATED HOURS: __.7____

JOB STEPS

Standard job steps for the ____ BI-WEEKLY ____ PM on the
____ PUMP STATION ____ at the following location :

_Go West on Kemper Rd. from Montgomery Rd & Kemper Rd. to the station which is on
the left near 6949 Kemper Rd.Grooms Rd.

*** INSPECT EQUIPMENT AND AREA AND NOTE ANY PROBLEMS ***

- 1) Follow Safety Call in procedure when working alone at pump station. Carry Cell Phone.
- 2) GENERATOR : *CHECK FUEL LEVEL. / TEST RUN GENERATOR. / CHECK HOSES*
- 3) : *CHECK HEATER OPERATION*
- 4) ELECTRICAL : *CHECK ALL WIRING (VISUALLY FOR POSSIBLE PROBLEMS).*
- 5) : *CHECK ALL PANEL LIGHTS FOR BURNT OUT BULBS / REPLACE.*
- 6) : *CHECK WELL FLOATS FOR DEBRIS BUILD-UP.*
- 7) HOURS METER READING : RECORD NUMBERS ON PM SHEET & LOG BOOK.
- 8) *GENERATOR :*
- 9) HOUSE CLEANING :
- 10) *CHECK WELL FOR DEBRIS BUILD-UP*
- 11) *CLEANING UP AROUND STATION - MAINTAIN CLEAN AREA*
- 12)
- 13) WRITE WORK ORDER FOR ANY REPAIRS FOUND OR REPAIRS MADE.

Prepared by : _____ / NAME OF TEAM MEMBER :

Date: _____ / DATE OF WORK PERFORM :

Master File Name PMDESCMS.DOC

7-9-98

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MSD DIVISIONAL
PREVENTIVE MAINTENANCE FORM

Procedure Number _____

TITLE: WELLER WOODS PUMP STATION – BI-WEEKLY PM
EQUIPMENT NO. – P08-01.01-A001

Perform the ____ BI-WEEKLY ____ PM for the equipment listed below using the standard job steps for that equipment. If additional work is required to repair the equipment, other than PM, initiate a separate work order for that equipment. Complete all PM task first before attempting any repairs.

If you find additional steps are necessary to complete the PM, write the steps in the comment section and alert your supervisor of the additional steps.

DAY OF THE WEEK : FRIDAY_

COST CENTER OR EQUIPMENT NUMBER : _P08-01.01-A001

CRAFT:

11 & 27 NUMBER OF MEN ____2____

ESTIMATED HOURS: __.7____

JOB STEPS

Standard job steps for the ____ BI-WEEKLY ____ PM on the
____ PUMP STATION ____ at the following location :

_From Montgomery Rd. & Weller Road go East on Weller and turn right on Bridgewater.
Turn left on Capricorn. The plant is behind 8515 and shares a driveway with this house.

*** INSPECT EQUIPMENT AND AREA AND NOTE ANY PROBLEMS ***

- 1) Follow Safety Call in procedure when working alone at pump station. Carry Cell Phone.
- 2) GENERATOR : *CHECK FUEL LEVEL / CHECK HOSES*
- 3) : *CHECK HEATER OPERATION*
- 4) ELECTRICAL : *CHECK ALL WIRING (VISUALLY FOR POSSIBLE PROBLEMS).*
- 5) : *CHECK ALL PANEL LIGHTS FOR BURNT OUT BULBS / REPLACE.*
- 6) : *CHECK WELL FLOATS FOR DEBRIS BUILD-UP.*
- 7)
- 8) HOURS METER READING : RECORD NUMBERS ON PM SHEET & LOG BOOK.
- 9) *PUMP #1 :*
- 10) *PUMP #2 :*
- 11) *GENERATOR :*
- 12) HOUSE CLEANING :
- 13) *CHECK WELL FOR DEBRIS BUILD-UP*
- 14) *CLEANING UP AROUND STATION - MAINTAIN CLEAN AREA*
- 15)
- 16) WRITE WORK ORDER FOR ANY REPAIRS FOUND OR REPAIRS MADE.

Prepared by : _____ / NAME OF TEAM MEMBER :
Date: _____ / DATE OF WORK PERFORM :

Master File Name PMDESCMS.DOC

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MSD DIVISIONAL
PREVENTIVE MAINTENANCE FORM

Procedure Number _____

TITLE: KUGLER MILL PUMP STATION – BI-WEEKLY PM
EQUIPMENT NO. – S09-01.01-A001

Perform the BI-WEEKLY PM for the equipment listed below using the standard job steps for that equipment. If additional work is required to repair the equipment, other than PM, initiate a separate work order for that equipment. Complete all PM task first before attempting any repairs.

If you find additional steps are necessary to complete the PM, write the steps in the comment section and alert your supervisor of the additional steps.

DAY OF THE WEEK : FRIDAY_

COST CENTER OR EQUIPMENT NUMBER : _S09-01.01-A001

CRAFT:

11 & 27 NUMBER OF MEN 2

ESTIMATED HOURS: .7

JOB STEPS

Standard job steps for the BI-WEEKLY PM on the
PUMP STATION at the following location :

Go East on Kugler Mill Rd. from Miami Ave. to Kugler Mill Rd & East Galbraith Rd.
appromimately 1 mile. The station is on the right at the intersection with Calderwood
Lane.

*** INSPECT EQUIPMENT AND AREA AND NOTE ANY PROBLEMS ***

- 1) Follow Safety Call in procedure when working alone at pump station. Carry Cell Phone.
- 2) GENERATOR : *CHECK FUEL LEVEL. / TEST RUN GENERATOR. / CHECK HOSES*
- 3) : *CHECK HEATER OPERATION*
- 4) ELECTRICAL : *CHECK ALL WIRING (VISUALLY FOR POSSIBLE PROBLEMS).*
- 5) : *CHECK ALL PANEL LIGHTS FOR BURNT OUT BULBS / REPLACE.*
- 6) : *CHECK WELL FLOATS FOR DEBRIS BUILD-UP.*
- 7)
- 8) EXHAUST FAN & SUMP PUMP : *CHECK SUMP PUMP OPERATION*
- 9) : *LISTEN TO EXHAUST FAN FOR NOISE*
- 10) HOURS METER READING : RECORD NUMBERS ON PM SHEET & LOG BOOK.
- 11) PUMP #1 :
- 12) PUMP #2 :
- 13) GENERATOR :
- 14) HOUSE CLEANING :
- 15) *CHECK WELL FOR DEBRIS BUILD-UP*
- 16) *CLEANING UP AROUND STATION - MAINTAIN CLEAN AREA*

17)

509

18) WRITE WORK ORDER FOR ANY REPAIRS FOUND OR REPAIRS MADE.

Prepared by : _____ / NAME OF TEAM MEMBER :
Date: _____ / DATE OF WORK PERFORM :

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MSD DIVISIONAL
PREVENTIVE MAINTENANCE FORM

Procedure Number _____

TITLE: LEGEND OF CARPENTER'S RUN PUMP STATION
 – BI-WEEKLY PM
 EQUIPMENT NO. – S10-01.01-A001

Perform the ____ BI-WEEKLY ____ PM for the equipment listed below using the standard job steps for that equipment. If additional work is required to repair the equipment, other than PM, initiate a separate work order for that equipment. Complete all PM task first before attempting any repairs.

If you find additional steps are necessary to complete the PM, write the steps in the comment section and alert your supervisor of the additional steps.

DAY OF THE WEEK : FRIDAY_
COST CENTER OR EQUIPMENT NUMBER : _S10-01.01-A001 CRAFT:
11 & 27 NUMBER OF MEN _2_
ESTIMATED HOURS: _7_

JOB STEPS

Standard job steps for the ____ BI-WEEKLY ____ PM on the
____ PUMP STATION ____ at the following location :

_From Cooper & Reed Hartman Highway, go West on Cooper Rd. and turn left on
Mohler. Turn on Carpenter's Green Lane. The station is on the right next to 3608.

*** INSPECT EQUIPMENT AND AREA AND NOTE ANY PROBLEMS ***

- 1) Follow Safety Call in procedure when working alone at pump station. Carry Cell Phone.
- 2) GENERATOR : *CHECK FUEL LEVEL. / CHECK HOSES*
- 3) : *CHECK HEATER OPERATION*
- 4) ELECTRICAL : *CHECK ALL WIRING (VISUALLY FOR POSSIBLE PROBLEMS).*
- 5) : *CHECK ALL PANEL LIGHTS FOR BURNT OUT BULBS / REPLACE.*
- 6) : *CHECK WELL FLOATS FOR DEBRIS BUILD-UP.*
- 7)
- 8) HOURS METER READING : RECORD NUMBERS ON PM SHEET & LOG BOOK.
- 9) PUMP #1 :
- 10) PUMP #2 :
- 11) GENERATOR :
- 12) HOUSE CLEANING :
- 13) *CHECK WELL FOR DEBRIS BUILD-UP*
- 14) *CLEANING UP AROUND STATION - MAINTAIN CLEAN AREA*
- 15)
- 16) WRITE WORK ORDER FOR ANY REPAIRS FOUND OR REPAIRS MADE.

Prepared by : _____ / NAME OF TEAM MEMBER :
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MSD DIVISIONAL
PREVENTIVE MAINTENANCE FORM

Procedure Number _____

TITLE: ROLLMAN'S ESTATES PUMP STATION –
 BI-WEEKLY PM
 EQUIPMENT NO. – S11-01.01-A001

Perform the ____BI-WEEKLY____ PM for the equipment listed below using the standard job steps for that equipment. If additional work is required to repair the equipment, other than PM, initiate a separate work order for that equipment. Complete all PM task first before attempting any repairs.

If you find additional steps are necessary to complete the PM, write the steps in the comment section and alert your supervisor of the additional steps.

DAY OF THE WEEK : FRIDAY_
COST CENTER OR EQUIPMENT NUMBER : _S11-01.01-A001 CRAFT:
__11 & 27__ NUMBER OF MEN ____2____
ESTIMATED HOURS: __.7____

JOB STEPS

Standard job steps for the ____BI-WEEKLY____ PM on the
____PUMP STATION____ at the following location :

_From Galbraith Rd. & Ridge Rd. , go East on Galbraith Rd. and turn right into
Rollmans's Estates. Turn right on Ambercreek Dr. (First Right) turn left on Ridgeway (First Left) . Station is between 9064 & 9066.

*** INSPECT EQUIPMENT AND AREA AND NOTE ANY PROBLEMS ***

- 1) Follow Safety Call in procedure when working alone at pump station. Carry Cell Phone.
- 2) GENERATOR : *CHECK FUEL LEVEL / CHECK HOSES*
- 3) : *CHECK HEATER OPERATION*
- 4) ELECTRICAL : *CHECK ALL WIRING (VISUALLY FOR POSSIBLE PROBLEMS).*
- 5) : *CHECK ALL PANEL LIGHTS FOR BURNT OUT BULBS / REPLACE.*
- 6) : *CHECK WELL FLOATS FOR DEBRIS BUILD-UP.*
- 7)
- 8) HOURS METER READING : RECORD NUMBERS ON PM SHEET & LOG BOOK.
- 9) *PUMP #1 :*
- 10) *PUMP #2 :*
- 11) *GENERATOR :*
- 12) HOUSE CLEANING :
- 13) *CHECK WELL FOR DEBRIS BUILD-UP*
- 14) *CLEANING UP AROUND STATION - MAINTAIN CLEAN AREA*

15)

16) WRITE WORK ORDER FOR ANY REPAIRS FOUND OR REPAIRS MADE.

Prepared by : _____ / NAME OF TEAM MEMBER :
Date: _____ / DATE OF WORK PERFORM :

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MSD DIVISIONAL
PREVENTIVE MAINTENANCE FORM

Procedure Number _____

TITLE: SHARON INDUSTRIAL PUMP STATION – BI-WEEKLY
PM

EQUIPMENT NO. – S12-01.01-A001

Perform the ____ BI-WEEKLY ____ PM for the equipment listed below using the standard job steps for that equipment. If additional work is required to repair the equipment, other than PM, initiate a separate work order for that equipment. Complete all PM task first before attempting any repairs.

If you find additional steps are necessary to complete the PM, write the steps in the comment section and alert your supervisor of the additional steps.

DAY OF THE WEEK : FRIDAY_

COST CENTER OR EQUIPMENT NUMBER : _S12-01.01-A001

CRAFT:

11 & 27 NUMBER OF MEN _2_

ESTIMATED HOURS: _7_

JOB STEPS

Standard job steps for the ____ BI-WEEKLY ____ PM on the

____ PUMP STATION ____ at the following location :

_From Kemper Rd. & Readong Rd. go West on Kemper Rd. and turn left on Rockfield Court. The station is on the right at the end of the street.

*** INSPECT EQUIPMENT AND AREA AND NOTE ANY PROBLEMS ***

- 1) Follow Safety Call in procedure when working alone at pump station. Carry Cell Phone.
- 2) ELECTRICAL : *CHECK ALL WIRING (VISUALLY FOR POSSIBLE PROBLEMS).*
- 3) : *CHECK ALL PANEL LIGHTS FOR BURNT OUT BULBS / REPLACE.*
- 4) : *CHECK WELL FLOATS FOR DEBRIS BUILD-UP.*
- 5) HOURS METER READING : RECORD NUMBERS ON PM SHEET & LOG BOOK.
- 6) GENERATOR :
- 7) RAW SEWAGE PUMPS : *CHECK MECHANICAL SEALS / LIBRICATE*
- 8) *CHECK (HAND & AUTO) OPERATION / ALTERNATE*
- 9) SUMP PUMP & EXHAUST FAN : *CHECK OPERATION OF SUMP PUMP*
 : *LISTEN TO EXHAUST FAN FOR NOISE.*
- 10) HOUSE CLEANING :
- 11) *CHECK WELL FOR DEBRIS BUILD-UP*
- 12) *CLEANING UP AROUND STATION - MAINTAIN CLEAN AREA*
- 13)
- 14) WRITE WORK ORDER FOR ANY REPAIRS FOUND OR REPAIRS MADE.

Prepared by : _____ / NAME OF TEAM MEMBER :
Date: _____ / DATE OF WORK PERFORM :

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MSD DIVISIONAL
PREVENTIVE MAINTENANCE FORM

Procedure Number _____

TITLE: SOUTH CLIPPINGER PUMP STATION – BI-WEEKLY PM
 EQUIPMENT NO. – S13-01.01-A001

Perform the ____ BI-WEEKLY ____ PM for the equipment listed below using the standard job steps for that equipment. If additional work is required to repair the equipment, other than PM, initiate a separate work order for that equipment. Complete all PM task first before attempting any repairs.

If you find additional steps are necessary to complete the PM, write the steps in the comment section and alert your supervisor of the additional steps.

DAY OF THE WEEK : FRIDAY_

COST CENTER OR EQUIPMENT NUMBER : _S13-01.01-A001

CRAFT:

__11 & 27__ NUMBER OF MEN ____2____

ESTIMATED HOURS: __.7____

JOB STEPS

Standard job steps for the ____ BI-WEEKLY ____ PM on the
____ PUMP STATION ____ at the following location :

__Go South on Drake Rd. from Drake Rd. & Shawnee Run Rd. to right on South
Clippinger Rd. The pump station is on the left side at 8155 S. Clippinger Rd.

*** INSPECT EQUIPMENT AND AREA AND NOTE ANY PROBLEMS ***

- 1) Follow Safety Call in procedure when working alone at pump station. Carry Cell Phone.
- 2) GENERATOR : *CHECK FUEL LEVEL. / TEST RUN GENERATOR. / CHECK HOSES*
- 3) : *CHECK HEATER OPERATION*
- 4) ELECTRICAL : *CHECK ALL WIRING (VISUALLY FOR POSSIBLE PROBLEMS).*
- 5) : *CHECK ALL PANEL LIGHTS FOR BURNT OUT BULBS / REPLACE.*
- 6) : *CHECK WELL FLOATS FOR DEBRIS BUILD-UP.*
- 7)
- 8) EXHAUST FAN & SUMP PUMP : *CHECK SUMP PUMP OPERATION*
- 9) : *LISTEN TO EXHAUST FAN FOR NOISE*
- 10) HOURS METER READING : RECORD NUMBERS ON PM SHEET & LOG BOOK.
- 11) PUMP #1 :
- 12) PUMP #2 :
- 13) GENERATOR :
- 14) HOUSE CLEANING :
- 15) *CHECK WELL FOR DEBRIS BUILD-UP*
- 16) *CLEANING UP AROUND STATION - MAINTAIN CLEAN AREA*
- 17)

18) WRITE WORK ORDER FOR ANY REPAIRS FOUND OR REPAIRS MADE.

Prepared by : _____ / NAME OF TEAM MEMBER :
Date: _____ / DATE OF WORK PERFORM :

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PREVENTIVE MAINTENANCE FORM

Procedure Number _____

TITLE: VILLAGE WOODS PUMP STATION – BI-WEEKLY PM
EQUIPMENT NO. – S15-01.01-A001

Perform the BI-WEEKLY PM for the equipment listed below using the standard job steps for that equipment. If additional work is required to repair the equipment, other than PM, initiate a separate work order for that equipment. Complete all PM task first before attempting any repairs.

If you find additional steps are necessary to complete the PM, write the steps in the comment section and alert your supervisor of the additional steps.

DAY OF THE WEEK : FRIDAY

COST CENTER OR EQUIPMENT NUMBER : S15-01.01-A001

CRAFT:

11 & 27 NUMBER OF MEN 2

ESTIMATED HOURS: .7

JOB STEPS

Standard job steps for the BI-WEEKLY PM on the
PUMP STATION at the following location :

From Route 42 & Fields Ertel Rd. go East on Fileds Ertel Rd. and turn right on Village Woods. Turn right onto Hickory Nut and left on Diamond View. The station is on the left across from 12029 Diamond view.

*** INSPECT EQUIPMENT AND AREA AND NOTE ANY PROBLEMS ***

- 1) Follow Safety Call in procedure when working alone at pump station. Carry Cell Phone.
- 2) GENERATOR : *CHECK FUEL LEVEL. / CHECK HOSES*
- 3) : *CHECK HEATER OPERATION*
- 4) ELECTRICAL : *CHECK ALL WIRING (VISUALLY FOR POSSIBLE PROBLEMS).*
- 5) : *CHECK ALL PANEL LIGHTS FOR BURNT OUT BULBS / REPLACE.*
- 6) : *CHECK WELL FLOATS FOR DEBRIS BUILD-UP.*
- 7)
- 8) HOURS METER READING : RECORD NUMBERS ON PM SHEET & LOG BOOK.
- 9) *PUMP #1 :*
- 10) *PUMP #2 :*
- 11) *GENERATOR :*
- 12) HOUSE CLEANING :
- 13) *CHECK WELL FOR DEBRIS BUILD-UP*
- 14) *CLEANING UP AROUND STATION - MAINTAIN CLEAN AREA*
- 15)
- 16) WRITE WORK ORDER FOR ANY REPAIRS FOUND OR REPAIRS MADE.

Prepared by : _____ / NAME OF TEAM MEMBER :
Date: _____ / DATE OF WORK PERFORM :

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MSD DIVISIONAL
PREVENTIVE MAINTENANCE FORM

Procedure Number _____

TITLE: ELBROOK AIR LIFT STATION – BI-WEEKLY PM
EQUIPMENT NO. – S20-01.01-A001

Perform the ____ BI-WEEKLY ____ PM for the equipment listed below using the standard job steps for that equipment. If additional work is required to repair the equipment other than PM, initiate a separate work order for that equipment. Complete all PM task first before attempting any repairs.

If you find additional steps are necessary to complete the PM, write the steps in the comment section and alert your supervisor of the additional steps.

DAY OF THE WEEK : FRIDAY_

COST CENTER OR EQUIPMENT NUMBER : _S20-01.01-A001

CRAFT:

11 & 27 NUMBER OF MEN _2_

ESTIMATED HOURS: _7_

JOB STEPS

Standard job steps for the ____ BI-WEEKLY ____ PM on the
AIR PUMP STATION ____ at the following location :

_Go East on Section Rd. and turn left on Elbrook. The station is on the left in front of
7885. This is 2 houses before the road dead ends.

*** VISUALLY INSPECT EQUIPMENT AND AREA AND NOTE ANY PROBLEMS ***

- 1) Follow Safety Call in procedure when working alone at pump station. Carry Cell Phone.
- 2) COMPRESSOR : CHECK OIL LEVEL STICK / CHECK BELTS FOR WEAR & TENSION. / CHECK AIR PRESSURE GAUGES
- 3) ELECTRICAL : CHECK ALL WIRING (VISUALLY FOR POSSIBLE PROBLEMS).
- 4) : CHECK ALL PANEL LIGHTS FOR BURNT OUT BULBS / REPLACE.
- 5) THREE – WAY VALVE : CHECK TIMER SETTING & OPERATION
CHECK AIR BLOW BACK IN WELL / REPORT ANY VALVE CHATTERING.
- 6) ELECTRODE : CHECK FOR PROPER OPERATION
- 7) HEATER UNIT : CHECK HEATER OPERATION AND CLEAN UNIT.
- 8) HOUSE CLEANING :
- 9) CHECK WELL FOR DEBRI BUILD-UP
- 10) CLEANING UP AROUND STATION - MAINTAIN CLEAN AREA
- 11) WRITE WORK ORDER FOR ANY REPAIRS FOUND OR REPAIRS MADE.

Prepared by : _____ / NAME OF TEAM MEMBER :

MSD DIVISIONAL
PREVENTIVE MAINTENANCE FORM

Procedure Number _____

TITLE: KENWOOD AIR LIFT STATION – BI-WEEKLY PM
EQUIPMENT NO. – S22-01.01-A001

Perform the ____ BI - WEEKLY ____ PM for the equipment listed below using the standard job steps for that equipment. If additional work is required to repair the equipment, other than PM, initiate a separate work order for that equipment. Complete all PM task first before attempting any repairs.

If you find additional steps are necessary to complete the PM, write the steps in the comment section and alert your supervisor of the additional steps.

DAY OF THE WEEK : FRIDAY_

COST CENTER OR EQUIPMENT NUMBER : _S22-01.01-A001

CRAFT:

__11 & 27__ NUMBER OF MEN ____2____

ESTIMATED HOURS: __.7____

JOB STEPS

Standard job steps for the ____ BI - WEEKLY ____ PM on the
__AIR__ PUMP STATION__ at the following location :

_From Euclid Rd. & Kenwood Rd. go South on Kenwood Rd. The station is on the left
next to 5868 Kenwood Rd.

*** INSPECT EQUIPMENT AND AREA AND NOTE ANY PROBLEMS ***

- 1) Follow Safety Call in procedure when working alone at pump station. Carry Cell Phone.
- 2) COMPRESSOR : *CHECK OIL LEVEL STICK / CHECK BELTS FOR WEAR & TENSION. / CHECK AIR PRESSURE GAUGES*
- 3) ELECTRICAL : *CHECK ALL WIRING (VISUALLY FOR POSSIBLE PROBLEMS).*
- 4) : *CHECK ALL PANEL LIGHTS FOR BURNT OUT BULBS / REPLACE.*
- 5) THREE – WAY VALVE : *CHECK TIMER SETTING & OPERATION
CHECK AIR BLOW BACK IN WELL / REPORT ANY
VALVE CHATTERING.*
- 6) ELECTRODE : *CHECK FOR PROPER OPERATION*
- 7) HEATER UNIT : *CHECK HEATER OPERATION AND CLEAN UNIT.*
- 8) HOUSE CLEANING :
- 9) *CHECK WELL FOR DEBRI BUILD-UP*
- 10) *CLEANING UP AROUND STATION - MAINTAIN CLEAN AREA*
- 11) WRITE WORK ORDER FOR ANY REPAIRS FOUND OR REPAIRS MADE.

Prepared by : _____ / NAME OF TEAM MEMBER :

Date: _____ / DATE OF WORK PERFORM :

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MSD DIVISIONAL
PREVENTIVE MAINTENANCE FORM

Procedure Number _____

TITLE: WYNBROOK AIR LIFT STATION – BI-WEEKLY PM
EQUIPMENT NO. – S23-01.01-A001

Perform the ____ BI-WEEKLY ____ PM for the equipment listed below using the standard job steps for that equipment. If additional work is required to repair the equipment, other than PM, initiate a separate work order for that equipment. Complete all PM task first before attempting any repairs.

If you find additional steps are necessary to complete the PM, write the steps in the comment section and alert your supervisor of the additional steps.

DAY OF THE WEEK : FRIDAY_
COST CENTER OR EQUIPMENT NUMBER : _S23-01.01-A001 CRAFT:
11 & 27 NUMBER OF MEN ____2____
ESTIMATED HOURS: __.7____

JOB STEPS

Standard job steps for the ____ BI-WEEKLY ____ PM on the
AIR PUMP STATION ____ at the following location :

_From Reed Hartmen Highway & Cornell Rd. go West on Cornell Rd. and turn right on
Swing Rd. Turn left on Carriagelite Drive. The station is at 4125 Carriagelite Rd.

*** VISUALLY INSPECT EQUIPMENT AND AREA AND NOTE ANY PROBLEMS ***

- 1) Follow Safety Call in procedure when working alone at pump station. Carry Cell Phone.
- 2) COMPRESSOR : *CHECK OIL LEVEL STICK / CHECK BELTS FOR WEAR & TENSION. / CHECK AIR PRESSURE GAUGES*
- 3) ELECTRICAL : *CHECK ALL WIRING (VISUALLY FOR POSSIBLE PROBLEMS).*
- 4) : *CHECK ALL PANEL LIGHTS FOR BURNT OUT BULBS / REPLACE.*
- 5) THREE – WAY VALVE : *CHECK TIMER SETTING & OPERATION*
CHECK AIR BLOW BACK IN WELL / REPORT ANY
VALVE CHATTERING.
- 6) ELECTRODE : *CHECK FOR PROPER OPERATION*
- 7) HEATER UNIT : *CHECK HEATER OPERATION AND CLEAN UNIT.*
- 8) HOUSE CLEANING :
- 9) *CHECK WELL FOR DEBRI BUILD-UP*
- 10) *CLEANING UP AROUND STATION- MAINTAIN CLEAN AREA*
- 11) WRITE WORK ORDER FOR ANY REPAIRS FOUND OR REPAIRS MADE.

Prepared by : _____ / NAME OF TEAM MEMBER :
Date: _____ / DATE OF WORK PERFORM :

Master File Name PMDESCMS.DOC

7-9-98

File each new file as PM____.doc The space is for each plant use plant letters and then 4 digits.

Once this procedure is entered into mapcon save as PM____.doc the spaces for Mapcon Number.

Also enter Mapcon procedure number at the top of this form. Behind Procedure Number

MSD DIVISIONAL
PREVENTIVE MAINTENANCE FORM

Procedure Number _____

TITLE: ELBROOK AIR LIFT STATION – YEARLY PM
EQUIPMENT NO. – S20-01.01-A001

Perform the ____ YEARLY ____ PM for the equipment listed below using the standard job steps for that equipment. If additional work is required to repair the equipment, other than PM, initiate a separate work order for that equipment. Complete all PM task first before attempting any repairs.

If you find additional steps are necessary to complete the PM, write the steps in the comment section and alert your supervisor of the additional steps.

DAY OF THE WEEK : FRIDAY_

COST CENTER OR EQUIPMENT NUMBER : _S20-01.01-A001

CRAFT:

__11 & 27__ NUMBER OF MEN ____2____

ESTIMATED HOURS: __3____

JOB STEPS

Standard job steps for the ____ YEARLY ____ PM on the
AIR PUMP STATION ____ at the following location :

_Go East on Section Rd. and turn left on Elbrook. The station is on the left in front of
7885. This is 2 houses before the road dead ends.

*** INSPECT EQUIPMENT AND AREA AND NOTE ANY PROBLEMS ***

- 1) Follow Safety Call in procedure when working alone at pump station. Carry Cell Phone.
- 2) COMPRESSOR : CHANGE OIL (DYNA LUBE 30) AND AIR FILTER
- 3) COMPRESSOR : CHECK OIL LEVEL STICK / CHECK BELTS FOR WEAR & TENSION. / CHECK AIR PRESSURE GAUGES
- 4) ELECTRICAL : CHECK ALL WIRING (VISUALLY FOR POSSIBLE PROBLEMS).
- 5) : CHECK ALL PANEL LIGHTS FOR BURNT OUT BULBS / REPLACE.
- 6) THREE – WAY VALVE : CHECK TIMER SETTING & OPERATION
CHECK AIR BLOW BACK IN WELL / REPORT ANY VALVE CHATTERING.
- 7) ELECTRODE : CHECK FOR PROPER OPERATION
- 8) HEATER UNIT : CHECK HEATER OPERATION AND CLEAN UNIT.
- 9) HOUSE CLEANING :
- 10) CHECK WELL FOR DEBRI BUILD-UP
- 11) CLEANING UP AROUND STATION - MAINTAIN CLEAN AREA
- 12) WRITE WORK ORDER FOR ANY REPAIRS FOUND OR REPAIRS MADE.

Prepared by : _____ / NAME OF TEAM MEMBER :
Date: _____ / DATE OF WORK PERFORM :

Master File Name PMDESCMS.DOC

7-9-98

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MSD DIVISIONAL
PREVENTIVE MAINTENANCE FORM

Procedure Number _____

TITLE: JOHNSON ROAD AIR LIFT STATION – YEARLY PM
EQUIPMENT NO. – S21-01.01-A001

Perform the ____ YEARLY ____ PM for the equipment listed below using the standard job steps for that equipment. If additional work is required to repair the equipment, other than PM, initiate a separate work order for that equipment. Complete all PM task first before attempting any repairs.

If you find additional steps are necessary to complete the PM, write the steps in the comment section and alert your supervisor of the additional steps.

DAY OF THE WEEK : FRIDAY ____
COST CENTER OR EQUIPMENT NUMBER : _S21-01.01-A001 CRAFT:
_11 & 27____ NUMBER OF MEN ____2____
ESTIMATED HOURS: _3____

JOB STEPS

Standard job steps for the ____ YEARLY ____ PM on the
_AIR__ PUMP STATION ____ at the following location :

From Kenwood Rd. & Euclid Rd. go South on Kenwood Rd. and turn right on Ckerokee Dr. Turn right on Johnson Rd. The station is three houses down in the front yard of 6052.

*** INSPECT EQUIPMENT AND AREA AND NOTE ANY PROBLEMS ***

- 1) Follow Safety Call in procedure when working alone at pump station. Carry Cell Phone.
- 2) COMPRESSOR : CHANGE OIL (DYNA LUBE 30) AND AIR FILTER
- 3) COMPRESSOR : CHECK OIL LEVEL STICK / CHECK BELTS FOR WEAR & TENSION. / CHECK AIR PRESSURE GAUGES
- 4) ELECTRICAL : CHECK ALL WIRING (VISUALLY FOR POSSIBLE PROBLEMS).
- 5) : CHECK ALL PANEL LIGHTS FOR BURNT OUT BULBS / REPLACE.
- 6) THREE – WAY VALVE : CHECK TIMER SETTING & OPERATION
CHECK AIR BLOW BACK IN WELL / REPORT ANY VALVE CHATTERING.
- 7) ELECTRODE : CHECK FOR PROPER OPERATION
- 8) HEATER UNIT : CHECK HEATER OPERATION AND CLEAN UNIT.
- 9) HOUSE CLEANING :
- 10) CHECK WELL FOR DEBRI BUILD-UP
- 11) CLEANING UP AROUND STATION - MAINTAIN CLEAN AREA
- 12) WRITE WORK ORDER FOR ANY REPAIRS FOUND OR REPAIRS MADE.

Prepared by : _____ / NAME OF TEAM MEMBER :

Date: _____ / DATE OF WORK PERFORM :

Master File Name PMDESCMS.DOC

7-9-98

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Also enter Mapcon procedure number at the top of this form. Behind Procedure Number

MSD DIVISIONAL
PREVENTIVE MAINTENANCE FORM

Procedure Number _____

TITLE: KENWOOD AIR LIFT STATION – YEARLY PM
EQUIPMENT NO. – S22-01.01-A001

Perform the ____ YEARLY ____ PM for the equipment listed below using the standard job steps for that equipment. If additional work is required to repair the equipment, other than PM, initiate a separate work order for that equipment. Complete all PM task first before attempting any repairs.

If you find additional steps are necessary to complete the PM, write the steps in the comment section and alert your supervisor of the additional steps.

DAY OF THE WEEK : FRIDAY_
COST CENTER OR EQUIPMENT NUMBER : _S22-01.01-A001 CRAFT:
11 & 27 NUMBER OF MEN ____2____
ESTIMATED HOURS: _3____

JOB STEPS

Standard job steps for the ____ YEARLY ____ PM on the
AIR PUMP STATION ____ at the following location :

_From Euclid Rd. & Kenwood Rd. go South on Kenwood Rd. The station is on the left
next to 5868 Kenwood Rd.

*** INSPECT EQUIPMENT AND AREA AND NOTE ANY PROBLEMS ***

- 1) Follow Safety Call in procedure when working alone at pump station. Carry Cell Phone.
- 2) COMPRESSOR : CHANGE OIL (DYNA LUBE 30) AND AIR FILTER
- 3) COMPRESSOR : *CHECK OIL LEVEL STICK / CHECK BELTS FOR WEAR & TENSION. / CHECK AIR PRESSURE GAUGES*
- 4) ELECTRICAL : *CHECK ALL WIRING (VISUALLY FOR POSSIBLE PROBLEMS).*
- 5) : *CHECK ALL PANEL LIGHTS FOR BURNT OUT BULBS / REPLACE.*
- 6) THREE – WAY VALVE : *CHECK TIMER SETTING & OPERATION*
CHECK AIR BLOW BACK IN WELL / REPORT ANY
VALVE CHATTERING.
- 7) ELECTRODE : *CHECK FOR PROPER OPERATION*
- 8) HEATER UNIT : *CHECK HEATER OPERATION AND CLEAN UNIT.*
- 9) HOUSE CLEANING :
- 10) *CHECK WELL FOR DEBRI BUILD-UP*
- 11) *CLEANING UP AROUND STATION - MAINTAIN CLEAN AREA*
- 12) WRITE WORK ORDER FOR ANY REPAIRS FOUND OR REPAIRS MADE.

Prepared by : _____ / NAME OF TEAM MEMBER :

Date: _____ / DATE OF WORK PERFORM :

Master File Name PMDESCMS.DOC

7-9-98

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Also enter Mapcon procedure number at the top of this form. Behind Procedure Number

MSD DIVISIONAL
PREVENTIVE MAINTENANCE FORM

Procedure Number _____

TITLE: WYNBROOK AIR LIFT STATION – YEARLY PM
EQUIPMENT NO. – S23-01.01-A001

Perform the ____ YEARLY ____ PM for the equipment listed below using the standard job steps for that equipment. If additional work is required to repair the equipment, other than PM, initiate a separate work order for that equipment. Complete all PM task first before attempting any repairs.

If you find additional steps are necessary to complete the PM, write the steps in the comment section and alert your supervisor of the additional steps.

DAY OF THE WEEK : FRIDAY_
COST CENTER OR EQUIPMENT NUMBER : _S23-01.01-A001 CRAFT:
11 & 27 NUMBER OF MEN 2
ESTIMATED HOURS: _7_

JOB STEPS

Standard job steps for the ____ YEARLY ____ PM on the
AIR PUMP STATION_ at the following location :

_From Reed Hartmen Highway & Cornell Rd. go West on Cornell Rd. and turn right on
Swing Rd. Turn left on Carriagelite Drive. The station is at 4125 Carriagelite Rd.

*** VISUALLY INSPECT EQUIPMENT AND AREA AND NOTE ANY PROBLEMS ***

- 1) Follow Safety Call in procedure when working alone at pump station. Carry Cell Phone.
- 2) COMPRESSOR : CHANGE OIL (DYNA LUBE 30) AND AIR FILTER
- 3) COMPRESSOR : CHECK OIL LEVEL STICK / CHECK BELTS FOR WEAR &
TENSION. / CHECK AIR PRESSURE GAUGES
- 4) ELECTRICAL : CHECK ALL WIRING (VISUALLY FOR POSSIBLE PROBLEMS).
- 5) : CHECK ALL PANEL LIGHTS FOR BURNT OUT BULBS / REPLACE.
- 6) THREE – WAY VALVE : CHECK TIMER SETTING & OPERATION
CHECK AIR BLOW BACK IN WELL / REPORT ANY
VALVE CHATTERING.
- 7) ELECTRODE : CHECK FOR PROPER OPERATION
- 8) HEATER UNIT : CHECK HEATER OPERATION AND CLEAN UNIT.
- 9) HOUSE CLEANING :
- 10) CHECK WELL FOR DEBRI BUILD-UP
- 11) CLEANING UP AROUND STATION - MAINTAIN CLEAN AREA
- 12) WRITE WORK ORDER FOR ANY REPAIRS FOUND OR REPAIRS MADE.

Prepared by : _____ / NAME OF TEAM MEMBER :

Date: _____ / DATE OF WORK PERFORM :

Master File Name PMDESCMS.DOC

7-9-98

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Also enter Mapcon procedure number at the top of this form. Behind Procedure Number

Taylor Creek WWTP

Weekly in left Stations.

Tec 61

STATION

CHECKED BY

COMPRESSORS

DATE

CYCLE TEST THE STATION

CHECK AND ADJUST BELTS

1

2

CHECK OIL LEVEL

1

2

RECORD HOUR METER

1

2

CHECK ALTERNATOR

CHECK AIR PRESSURE, RECORD

THREE WAY VALVE

CHECK THE TIMER, RECORD

CHECK BLOWBACK INTO W.W.

ELECTRODE

CHECK NO FAIL OPERATION

HEATER, CHECK OPERATION

EXHAUST FAN CHECK OPERATION

CONTROLS

CHECK PANEL LIGHTS

VISUALY CHECK ALL WIRING

TELEMETERING

CHECK RTU AND VERIFY

HOUSE KEEPING

CLECN UP ALL SPILLS

POLICE UP AROUND STATION

COMMENTS

Weekly Pump Station

T202

STATION

CHECKED BY _____

DATE _____

WET WELL

CHECK FLOAT OPERATION

CHECK FOR GREASE AND DEBRIS

CHECK PUMP OPERATION

1 _____

2 _____

RECORD PUMP HOURS

1 _____

2 _____

CHECK SEAL FAILURE LIGHT

INSPECT CHECK VALVES

1 _____

2 _____

CONTROLS

CHECK ALTERNATOR

VISUALLY CHECK WIRING

HOUSE KEEPING

CLEAN UP ALL SPILLS

POLICE UP AROUND STATION

TELEMETERING

CHECK RTU AND VERIFY

COMMENTS _____

WINWORD.DOC

Weekly Submersible

T-203

STATION

CHECKED BY _____

DATE _____

WET WELL

CHECK FLOAT OPERATION

CHECK FOR GREASE AND DEBRIS

CHECK PUMP OPERATION

1 _____

2 _____

RECORD PUMP HOURS

1 _____

2 _____

CHECK SEAL FAILURE LIGHT

INSPECT CHECK VALVES

1 _____

2 _____

CONTROLS

CHECK ALTERNATOR

VISUALLY CHECK WIRING

HOUSE KEEPING

CLEAN UP ALL SPILLS

POLICE UP AROUND STATION

TELEMETERING

CHECK RTU AND VERIFY

GENERATOR

RECORD HOUR METER

CHECK FUEL OIL LEVEL

CHECK LUBE OIL LEVEL

CHECK COOLING WATER LEVEL

CHECK BLOCK HEATERS

CHECK ALL HOSES, BELTS ECT.

COMMENTS _____

Weekly - Pleasant Run Central

7-2-84

STATION P.R.C.

CHECKED BY _____

WET WELL

DATE _____

CHECK FOR GREASE AND DEBRIS

MAIN FLOOR

CHECK BUBBLER FOR OPERATION

DRAIN CONDENSATE FROM FILTER

RECORD PUMP OPERATING HOURS

1

2

3

4

5

RECORD SEAL WATER PRESSURE

1

2

AIR COMPRESSORS

CHECK PRESSURE & RECORD

RECORD HOUR METER

1

2

CHECK OIL LEVEL

1

2

DRAIN CONDENSATE FROM TANK

CHECK ODOR CONTROL BLOWER

CHECK EXHAUST FAN

CHECK INLET FAN

CHECK ALL LIGHTING

VISUALLY INSPECT ALL MCC

WIRING

CHECK FURNACE OPERATION

DRY WELL/VALVE CHAMBER

CHECK PUMP OPERATION

1

2

3

4

5

INSPECT CHECK VALVES

1

2

3

4

5

CHECK SUMP PUMP

HOUSE KEEPING

POLICE UP AREA

TELEMETERING

CHECK RTU & VERIFY

COMMENTS _____

Weekly PRW

TAYLOR CREEK TREATMENT PLANT

PLEASANT RUN WEST PUMP STATION

TOTALIZER READINGS _____ G.P.D. _____ DATE _____

PUMP POSITION

STARTS

HOURS

1 _____

2 _____

3 _____

SIGNED _____

TOTALIZER READINGS _____ GPD _____ DATE _____

PUMP POSITION

STARTS

HOURS

1 _____

2 _____

3 _____

SIGNED _____

TOTALIZER READINGS _____ GPD _____ DATE _____

PUMP POSITION

STARTS

HOURS

1 _____

2 _____

3 _____

SIGNED _____

TOTALISER READINGS _____ GPD _____ DATE _____

PUMP POSITION

STARTS

HOURS

1 _____

2 _____

3 _____

SIGNED _____

TOTALIZER READINGS _____ GPD _____ DATE _____

PUMP POSITION

STARTS

HOURS

1 _____

2 _____

3 _____

SIGNED _____

Weekly

Table

STATION COLERAIN BEVIS

CHECKED BY _____

DATE _____

WET WELL

CHECK FLOAT OPERATION

CHECK FOR GREASE AND DEBRIS

CHECK PUMP OPERATION

1 _____

2 _____

3 _____

4 _____

RECORD PUMP HOURS

1 _____

2 _____

3 _____

4 _____

CHECK SEAL FAILURE LIGHT

INSPECT CHECK VALVES

1 _____

2 _____

CONTROLS

CHECK ALTERNATOR

VISUALLY CHECK WIRING

CHECK CHLORINE PUMP

CHECK MUFFIN MONSTER

ROTATE SCREEN

HOUSE KEEPING

CLEAN UP ALL SPILLS

POLICE UP AROUND STATION

TELEMETERING

CHECK RTU AND VERIFY

GENERATOR

RECORD HOUR METER

CHECK FUEL OIL LEVEL

CHECK LUBE OIL LEVEL

Ta06

CHECK COOLING WATER LEVEL _____

CHECK BLOCK HEATERS _____

CHECK ALL HOSES, BELTS ECT. _____

COMMENTS _____

TAYLOR CREEK TREATMENT PLANT MAINTENANCE

AIR LIFT STATIONS

ANNUAL P.M.

STATION _____

ELECTRICAL

NAME _____

MAINTENANCE

NAME _____

DATE

CHANGE OIL IN COMPRESSORS

REPLACE V BELTS

REBUILD 3 WAY VALVE

CLEAN EXHAUST FAN

MOTOR STARTER CONTACTS
CLEAN/REPLACE

TIGHTEN ALL ELECTRICAL CONNECTIONS

CHECK AND ADJUST PRESSURE SWITCHES

GREASE MOTOR BEARINGS

REMOVE AND CHECK ELECTRODE

CLEAN THE INSIDE OF THE STATION

COMMENTS _____

TAYLOR CREEK TREATMENT PLANT MAINTENANCE

PUMP STATION

ANNUAL P.M.

STATION _____

ELECTRICAL

NAME _____

MAINTENANCE

NAME _____

DATE

CLEAN/LUBRICATE EXHAUST FAN MOTOR

CHECK/REPAIR/REPLACE MOTOR STARTER CONTACTS

TIGHTEN ALL ELECTRICAL CONNECTIONS

CLEAN OUT SUMP PIT

CLEAN STATION COMPLETELY

PERFORM ANNUAL P.M. AS PER TAYLOR CREEK
PUMP STATION CHECK LIST (ATTACHED)

COMMENTS _____

TAYLOR CREEK PUMP STATION
CHECK LIST

STATION NAME _____

DATE _____

PUMP MAKE _____

PUMP MODEL _____

PUMP H.P. _____

PUMP VOLTAGE _____ PHASE _____ HZ _____

PUMP G.P.M. _____

PUMP T.D.H. _____

FLOATS (TAG) _____

TRANSFORMER SIZE _____

MEASURE VOLTAGE BETWEEN PHASES

T1 TO T2 _____

T1 TO T3 _____

T2 TO T3 _____

RECORD THE AMPERAGE PULLED BY THE PUMP MOTORS

T1 _____

T2 _____

T3 _____

CHECK THE MANUAL OPERATION OF THE PUMPS

NO 1 Y () NO ()

NO 2 Y () NO ()

NO 3 Y () NO ()

NO 4 Y () NO ()

NO 5 Y () NO ()

CHECK THE AUTOMATIC OPERATION OF THE PUMPS. TIP THE FLOATS

NO 1 Y () NO ()

NO 2 Y () NO ()

NO 3 Y () NO ()

NO 4 Y () NO ()

NO 5 y () NO ()

CHECK THE AMOUNT OF FLOW COMING INTO THE WET WELL

DIA OF WET WELL _____ + 1 MIN. OF RISE _____ = AMOUNT

CHECK THE AMOUNT OF SEWAGE PUMPED

DIA OF WET WELL _____ - 1 MIN PUMPING + 1 MIN RISE = AMOUNT

NO 1 _____

NO 2 _____

NO 3 _____

NO 4 _____

NO 5 _____

CHECK VALVES OPERATING PROPERLY Y () N ()

PLUG VALVES OPERATING PROPERLY Y () N ()

ARE ALL PUMPS SEATED PROPERLY Y () N ()

NAME _____

WET WELL SIZES

3' WET WELL	4.41 GALLONS PER INCH
4' WET WELL	7.833 GALLONS PER INCH
6' WET WELL	17.624 GALLONS PER INCH
8' WET WELL	31.332 GALLONS PER INCH
10' WET WELL	48.956 GALLONS PER INCH

TAYLOR CREEK TREATMENT PLANT MAINTENANCE
SUBMERSIBLE PUMP STATIONS
ANNUAL P.M.

STATION _____

ELECTRICAL

NAME _____

MAINTENANCE

NAME _____

DATE

CHECK/RERAIR/REPLACE MOTOR STARTER CONTACTS _____

TIGHTEN ALL ELECTRICAL CONNECTIONS _____

REMOVE PUMPS FROM WET WELL /CHECK OPERATION _____

CHANGE OIL IN PUMPS _____

PERFORM ANNUAL P.M. AS PER TAYLOR CREEK
PUMP STATION CHECK LIST. (ATTACHED) _____

COMMENTS _____

**TAYLOR CREEK PUMP STATION
CHECK LIST**

STATION NAME _____

DATE _____

PUMP MAKE _____

PUMP MODEL _____

PUMP H.P. _____

PUMP VOLTAGE _____ PHASE _____ HZ _____

PUMP G.P.M. _____

PUMP T.D.H. _____

FLOATS (TAG) _____

TRANSFORMER SIZE _____

MEASURE VOLTAGE BETWEEN PHASES

T1 TO T2 _____

T1 TO T3 _____

T2 TO T3 _____

RECORD THE AMPERAGE PULLED BY THE PUMP MOTORS

T1 _____

T2 _____

T3 _____

CHECK THE MANUAL OPERATION OF THE PUMPS

NO 1 Y () NO ()

NO 2 Y () NO ()

NO 3 Y () NO ()

NO 4 Y () NO ()

NO 5 Y () NO ()

CHECK THE AUTOMATIC OPERATION OF THE PUMPS. TIP THE FLOATS

NO 1 Y () NO ()

NO 2 Y () NO ()

NO 3 Y () NO ()

NO 4 Y () NO ()

NO 5 y () NO ()

CHECK THE AMOUNT OF FLOW COMING INTO THE WET WELL

DIA OF WET WELL _____ + 1 MIN. OF RISE _____ = AMOUNT

CHECK THE AMOUNT OF SEWAGE PUMPED

DIA OF WET WELL _____ - 1 MIN PUMPING + 1 MIN RISE = AMOUNT

NO 1 _____

NO 2 _____

NO 3 _____

NO 4 _____

NO 5 _____

CHECK VALVES OPERATING PROPERLY Y () N ()

PLUG VALVES OPERATING PROPERLY Y () N ()

ARE ALL PUMPS SEATED PROPERLY Y () N ()

NAME _____

WET WELL SIZES

3' WET WELL	4.41 GALLONS PER INCH
4' WET WELL	7.833 GALLONS PER INCH
6' WET WELL	17.624 GALLONS PER INCH
8' WET WELL	31.332 GALLONS PER INCH
10' WET WELL	48.956 GALLONS PER INCH

TAYLOR CREEK TREATMENT PLANT

ANNUAL MAINTENANCE

COLERAIN BEVIS PUMP STATION

MAINTENANCE

NAME _____

ELECTRICAL

NAME _____

DATE _____

CHECK VALVES

CHECK OIL AND ADJUST VALVES

LUBRICATE BUFFER RODS

CLEAN UP VALVES AND VALVE CHAMBER

CHECK OIL AND ADJUST RELIEF VALVE

CHECK ROOF MOUNTED EXHAUST FAN

CHECK RADIANT HEATERS & THERMOSTATS

CLEAN AND LUBRICATE SLUICE GATE

CHECK, ADJUST, LUBE, ENTRANCE GATE CHAIN

CHECK ALL ELECTRICAL CONNECTIONS IN
M.C. CABINETS.

CHECK ALL ELECTRICAL CONNECTIONS IN
PUMP CONTROL CABINET.

CHECK MOTOR STARTERS

REMOVE PUMPS AND CHECK OPERATION &
IMPELLERS.

CHANGE OIL IN PUMPS.

CHECK/REPLACE PUMP LIFTING CHAIN

REPLACE CHAIN TIE CORD

HYDRAULIC UNIT

CHANGE OIL AND FILTER

INSPECT HYDRAULIC LINES

MUFFIN/CHANNEL MONSTER
INSPECT AND SERVICE UNIT AS PER P.M. SHEET

COMMENTS

TAYLOR CREEK

ANNUAL MUFFIN/CHANNEL MONSTER MAINTENANCE

GREASE MOTOR BEARINGS _____

INSPECT AND GREASE TOP AND BOTTOM SEALS _____

INSPECT BEARINGS _____

GREASE GEARS _____

INSPECT CUTTER STACK FOR TIGHTNESS _____

INSPECT CUTTERS _____

INSPECT WIRING _____

CHECK VOLTAGE

L1 _____

L2 _____

L3 _____

CHECK AMPRAGE

L1 _____

L2 _____

L3 _____

MAINTENANCE _____

ELECTRICAL _____

TAYLOR CREEK TREATMENT PLANT

ANNUAL MAINTENANCE

PLEASANT RUN CENTRAL

ELECTRICAL

NAME _____

MAINTENANCE

NAME _____

DATE _____

CHANGE AIR COMPRESSOR OIL & FILTER

CLEAN/CHANGE ALL AIR FILTERS &
LUBRICATORS

CHECK/CALIBRATE AIR GAGES

CHECK/CALIBRATE WATER PRESSURE GAGES

GREASE WET WELL BLOWER SHAFT

CHECK/CLEAN SEAL WATER SOLENOID

CLEAN SEAL WATER TANK

CHECK/ADJUST G.A. VALVE

GREASE INLET VALVES

GREASE OUTLET VALVES

CLEAN OUT SUMP PIT

GREASE FAN BEARINGS

CHECK/REPAIR MOTOR STARTER CONTACTS

TIGHTEN ALL ELECTRICAL CONNECTIONS

CLEAN /VACUME M.C. PANELS

CHECK/ADJUST MOTOR TIMERS

CHECK/CLEAN SOLENOID VALVES

CHECK/ADJUST PUMP PRESSURE SWITCHES

CHECK AUXILIARY POWER

CLEAN/VACUME AUXILIARY POWER PANEL

COMMENTS

WORD/WINWORD/PRCAPM

TAYLOR CREEK TREATMENT PLANT

ANNUAL MAINTENANCE

PLEASANT RUN WEST

✓ East

ELECTRICAL

NAME _____

MAINTENANCE

NAME _____

DATE

CHANGE AIR COMPRESSOR OIL & FILTER

CLEAN/CHANGE ALL AIR FILTERS &
LUBRICATORS

CHECK/CALIBRATE AIR GAGES

CHECK/CALIBRATE WATER PRESSURE GAGES

CHECK/CLEAN SEAL WATER SOLENOID

CLEAN SEAL WATER TANK

CHECK/ADJUST G.A. VALVE

GREASE INLET VALVES

GREASE OUTLET VALVES

CLEAN OUT SUMP PIT

GREASE FAN BEARINGS

CHANGE OIL IN HYDRAULIC UNIT

CHECK HYDRAULIC LINES

CHANNEL MONSTER

INSPECT AND SERVICE UNIT AS PER P.M. SHEET

CHECK/REPAIR MOTOR STARTER CONTACTS

TIGHTEN ALL ELECTRICAL CONNECTIONS

CLEAN /VACUME M.C. PANELS

CHECK/ADJUST MOTOR TIMERS

CHECK/CLEAN SOLENOID VALVES

CHECK/ADJUST PUMP PRESSURE SWITCHES

CHECK AUXILIARY POWER

CLEAN/VACUME AUXILIARY POWER PANEL

COMMENTS

TAYLOR CREEK

ANNUAL MUFFIN/CHANNEL MONSTER MAINTENANCE

GREASE MOTOR BEARINGS_____

INSPECT AND GREASE TOP AND BOTTOM SEALS_____

INSPECT BEARINGS_____

GREASE GEARS_____

INSPECT CUTTER STACK FOR TIGHTNESS_____

INSPECT CUTTERS_____

INSPECT WIRING_____

CHECK VOLTAGE

L1_____

L2_____

L3_____

CHECK AMPRAGE

L1_____

L2_____

L3_____

MAINTENANCE_____

ELECTRICAL_____

Weekly

7-2-14

TAYLOR CREEK TREATMENT PLANT
GENERATOR WEEKLY RUN REPORT

DATE _____	TIME ON	TIME OFF
BLANCHETTA PUMP STATION	_____	_____
COLERAIN BEVIS PUMP STATION	_____	_____
HONNERT RIDGE PUMP STATION	_____	_____
LASALLE PLACE PUMP STATION	_____	_____
LOCUST VIEW PUMP STATION	_____	_____
NORTHBEND CROSSING PUMP STATION	_____	_____
ORCHARD GATE PUMP STATION	_____	_____
SPRINGLEAF PUMP STATION	_____	_____
STRADFORD LAKES PUMP STATION	_____	_____
TAYLOR CREEK PUMP STATION	_____	_____
TAYLOR CREEK TREATMENT PLANT	_____	_____
TIMBER RIDGE PUMP STATION	_____	_____
WILLOW RIDGE PUMP STATION	_____	_____

COMMENTS _____

PROCEDURES FOR INSURING OPERATION OF MSD STANDBY GENERATORS

Contract Services

MSD always has a long-term contract with a company that has expertise in generators. The contract requires three levels of service for all MSD generators. Level One Service calls for performing annual maintenance that includes visual inspection of the unit and its components, making any adjustments to fluid levels, belts, etc.

Level Two Service calls for annual maintenance that repeats Level One Service and these additional requirements: lube, oil & filter change; fuel filter change; engine tune-up (if required); lube oil analysis and load bank testing (if required).

The contract's third level of service calls for a two-hour response time for dealing with emergencies, 24 hours per day, 7 days per week. Emergency service includes troubleshooting, repair and replacement of parts as needed in order to restore operation.

MSD Staff Services

MSD personnel provide two levels of generator service. Plant personnel visit each facility weekly to perform routine maintenance on treatment equipment. Included in these visits is a visual inspection of the generators.

In addition to these visits, each generator is programmed for a 30-minute cycle of operation once each week. This exercises the equipment, keeping it in a state of readiness.

The MSD Telemetry System provides another level of protection. Each generator is linked to a terminal in a station manned 24 hours per day, 7 days per week. Any deviation from normal operation sounds an alarm alerting the operator who then dispatches someone to investigate and take appropriate action.

Lastly, MSD has one fulltime employee whose sole responsibility is to service and troubleshoot MSD's standby generators. This employee periodically checks all of the generators. Plant or operations personnel can contact him when trouble is observed; plus the CENTREX Operator who constantly monitors telemetry signals can also contact him. He also responds to trouble calls 24 - 7, same as the Contractor. He is MSD's primary contact person for the generator contractor and always accompanies the contractor when handling trouble calls.